OCTOBER, 1963

AIRFIX magazine

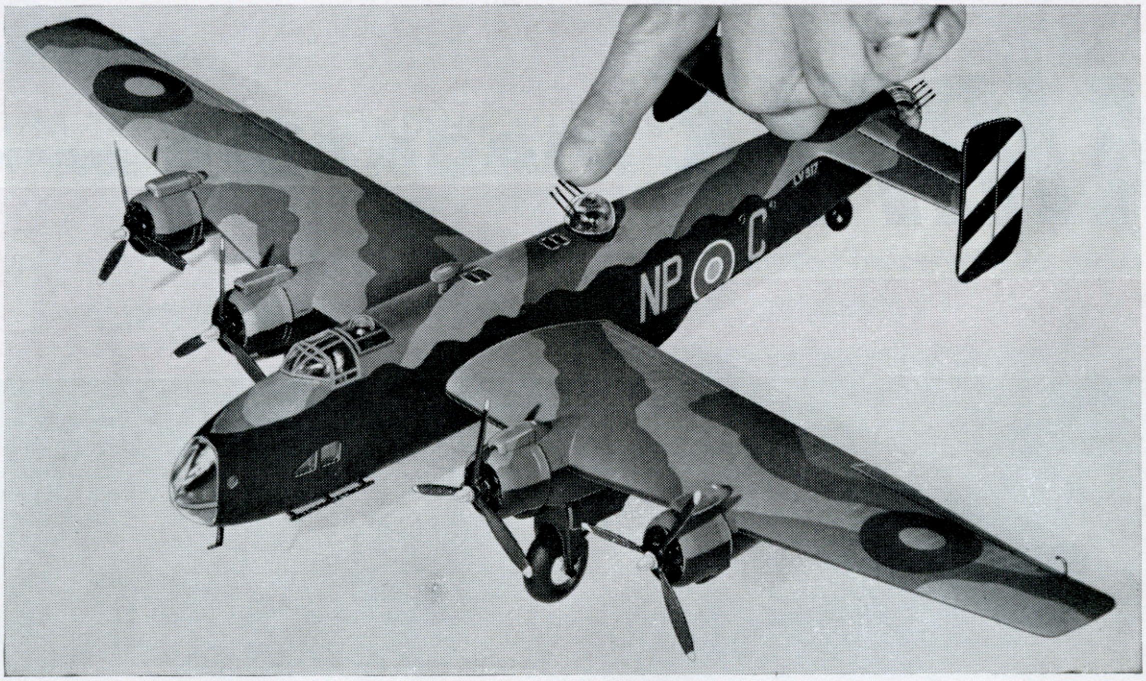
FOR PLASTIC MODELLERS

MONTHLY 1'6

IN THIS ISSUE

How to motorise the Airfix railbus

New Boeing 707, Yak-9D and Zodiac kits



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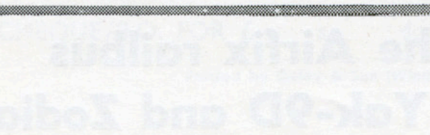

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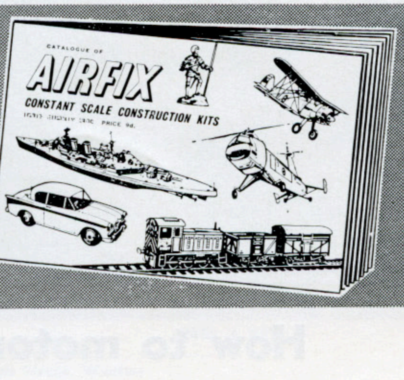

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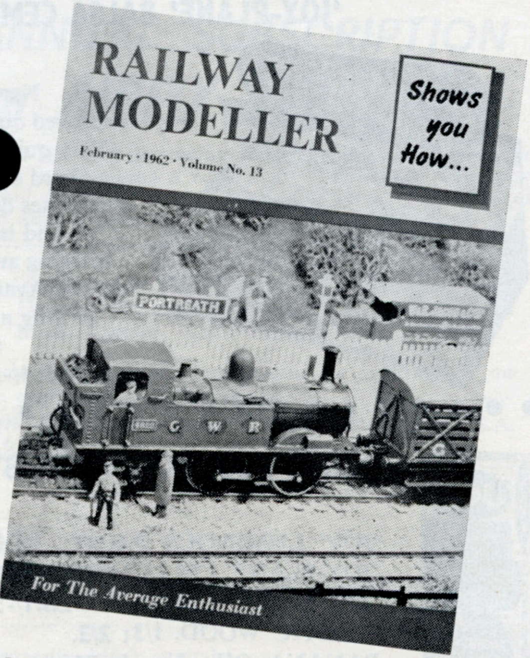

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AIRFIX magazine

FOR PLASTIC MODELLERS

Volume 5, Number 2 October, 1963

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COVER PICTURE

The MT 'ASTRALITY' in the River Humber, taken from an original oil painting by Frank H. Mason, RI. The 'ASTRALITY' was built by Messrs J. L. Thompson and Sons Ltd, of Sunderland, in 1945, and is owned by F. T. Everard and Sons Ltd, of London, EC3. She has a summer deadweight of 5,127 tons and gross tonnage of 3,744 tons. The vessel trades from ports in the Baltic and North West Europe and also to French ports in the Bay of Biscay.

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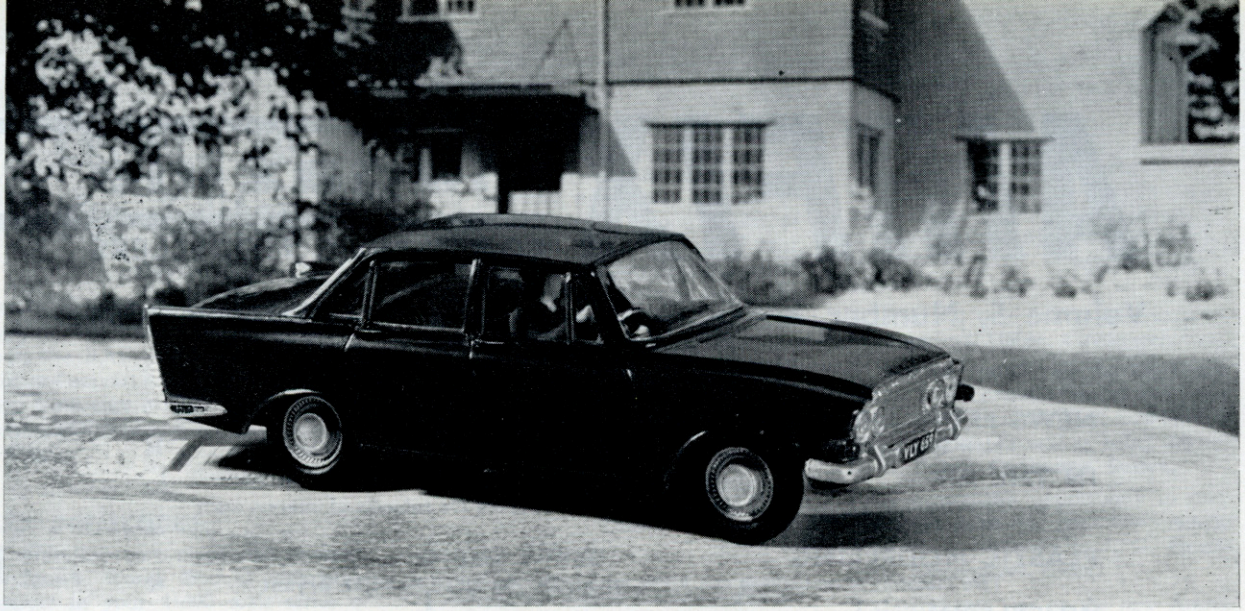


Priced at 3s, this Ford Zodiac has joined the Airfix series of 1:32 scale modern car kits.

NEWS FROM AIRFIX

The world's greatest value in construction kits

Boeing 707, Yak-9D and Ford Zodiac

AIRFIX aircraft enthusiasts have a double treat this month, with the release of a 1:72 scale Yak-9D and a 1:144 scale Boeing 707, while for 1:32 scale car fans there is a new model of the Ford Zodiac.

The Airfix Yak-9D has 30 parts and joins the 2s range of 1:72 scale aircraft kits. It is extremely easy to assemble from the clear instructions provided, which also give painting details. Nine colourful transfers and a stand on which to display the completed model are included with the kit. The undercarriage on this attractive model can be assembled in either the lowered or retracted position, the propeller revolves, and other detail includes exhaust stacks, armament and a pilot.

Wingspan of the Yak-9D measured 32 ft 10 in. and length 28 ft. The Airfix replica has a wingspan of $5\frac{3}{8}$ in and is $4\frac{5}{8}$ in long.

The Yak series of fighters were probably the most famous Soviet warplanes to see action in World War 2. Design of the first Yak fighter began in 1938, the prototype flew early in 1939 and Yak-1s became operational in quantity by the summer of 1942. At the same time, the Yak-7 appeared, later followed by the Yak-9, which was operational over Stalingrad late in 1942. Flying mainly at low altitudes, it was superior to the German Me109 and several Russian pilots became aces; numerous victories were also scored by the French Normandy-Niemen Group and two Polish squadrons that flew the Yak-9.

The range of the Yak-9 was continually extended, first by the 9D and then the 9DD. The Yak-9D was powered by a 1,260 hp Klimov M-105F engine, giving a top speed of 359 mph and a range of 870 miles. Armament was one 20 mm cannon firing through the airscrew shaft and one 12.7 mm machine gun.

SKYKING BOEING 707

AN exact replica of one of the world's largest and most powerful airliners, the Boeing 707, has joined models of the Caravelle, Comet 4B and Vanguard in the Airfix 1:144 scale Skyking range. Priced at 6s, the colourfully-boxed Boeing kit comprises 54 grey and 19 clear plastic parts, and there is a clear plastic stand on which to display the finished model. Also included in this fine kit is a tube of polystyrene cement, full assembly and painting instructions and a nine-part transfer

Latest 1:72 scale Airfix aircraft kit is this Yak-9D, which comprises 30 parts and costs 2s.

sheet enabling the model to be finished in authentic BOAC markings.

A particularly interesting feature of this kit is the way in which the transfers that run the length of the fuselage, surrounding the cabin windows, are affixed. The 'solid' transfers are laid on the fuselage halves, allowed to dry and then the window apertures punched through with a special 'tool' provided. This gives a clean and realistic effect, which is completed by cementing in place the transparent cabin 'windows' from the inside before joining together the two fuselage halves.

When completed, the model Boeing is 12¾ in long, with a wingspan of 11¼ in. Assembly presents no problems from the comprehensive and clear instructions provided, and the model can be made up with its well-detailed undercarriage in either the retracted or lowered position. If the latter is chosen, then ballast must be added inside the front of the model before completing assembly. The Boeing 707 is powered by four Rolls-Royce Conway by-pass jet engines (each of 17,500 lb thrust and giving a maximum speed of around 600 mph) which are accurately reproduced on the model, including the detailed low pressure compressor heads and noise suppressors.

Over 300 Boeing 707s, 720s and 727s have now been delivered. BOAC's 707s entered service in 1960 and the Corporation now has a fleet of 20 707-436s. Its round-the-world jet service is operated entirely by these aircraft. The 707 can cruise at up to 40,000 ft. With a full load it has a still-air range of 4,000 miles and a maximum all-up weight of nearly 140 tons. Its wingspan is 142 ft 5 in and length 152 ft 11 in.

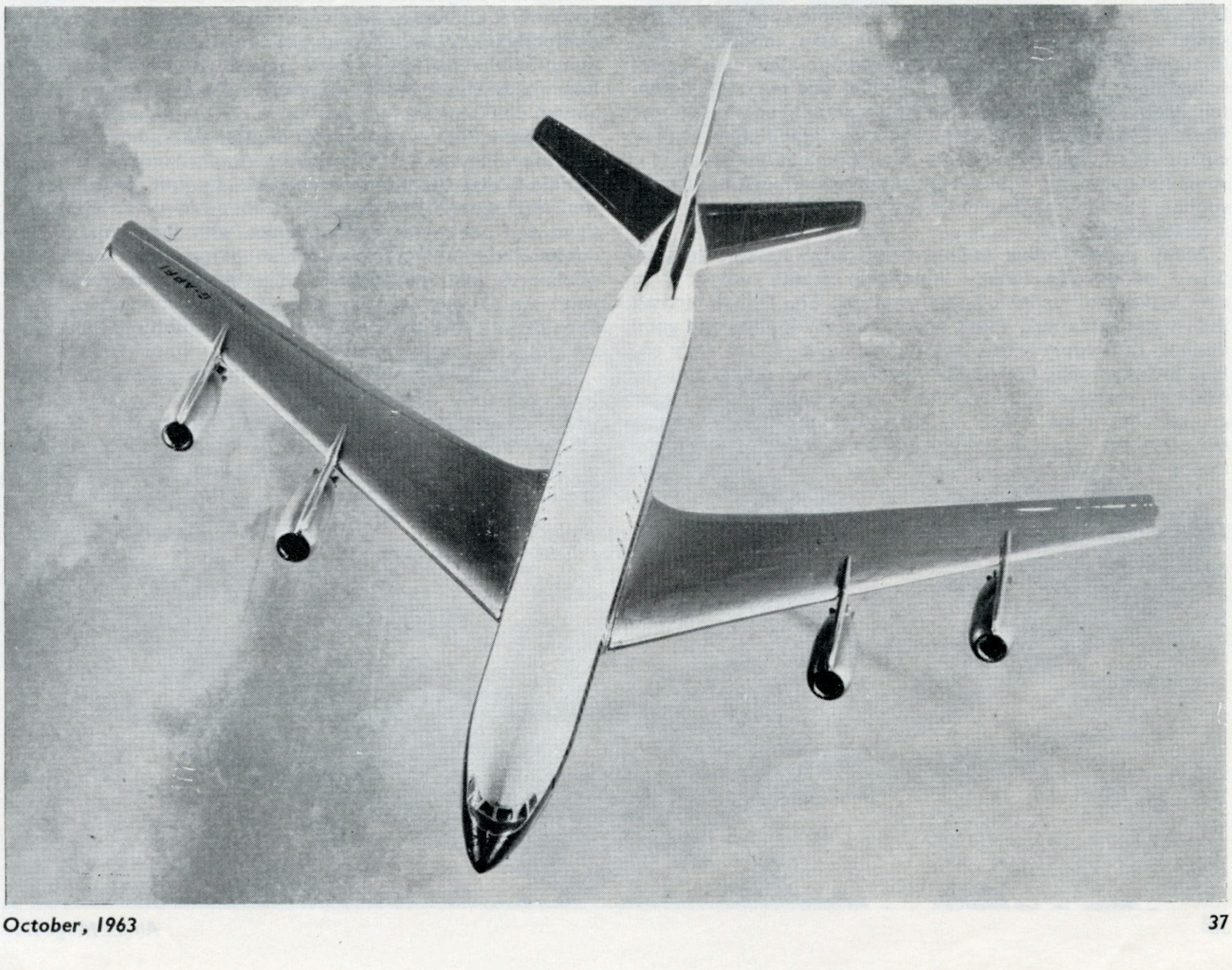
1:32 SCALE FORD ZODIAC

THE existing popular models of the Sunbeam Rapier, Austin-Healey Sprite, Renault Dauphine and Mini-Minor are now supplemented by Airfix's latest 1:32 scale modern car kit—a fine replica of the luxurious Ford Zodiac Mk 3. This latest kit, which sells for 3s, comprises 55 parts. Forty-three of these are moulded in green plastic, while the remaining 12 parts are transparent, and are used for windows, and front and rear lamps.

The front and rear suspension, together with the transmission and twin exhaust system, is finely detailed beneath the model, while inside there is a faithfully-reproduced dashboard and steering wheel, together with seats. Externally, the body carries authentic 'Zodiac' emblems at front and rear, while door handles and windscreen wipers are also featured. The characteristic front grille, with its imposing twin headlamps, is also accurately depicted on this attractive model. Full painting details are given in the instruction sheet, together with a choice of four alternative number plates, which can be cut out and cemented in place on the completed model.

The 100 mph Zodiac is the most luxurious model in the British Ford range. It has a six-cylinder 2½ litre engine, four-speed gearbox and disc brakes. Six passengers can be carried in comfort, with plenty of space for their luggage in the 22 cu ft boot.

New in the Airfix 1:144 scale Skyking series is this fine 73-part replica of a BOAC Boeing 707.



IN THE AIR

by Alan W. Hall

WITH the first flight of the BAC-111 successfully completed (on August 20), the British Aircraft Corporation can look forward once more to beating the world with a new transport several years ahead of its time. The national press, radio and TV made much of the event and, to be fair, the Corporation have been able to 'steal a march' on the other aircraft manufacturers, particularly their rivals in the United States. But let's look at this in perspective.

At the time of writing this column, the orders for the BAC-111 stood at around the 60 mark, but these figures are small compared with those for some other aircraft manufactured on the other side of the Atlantic. Our own largest seller, the Viscount, reached a total of just over 400 before the final aircraft came off the production line, whereas the Boeing 707, which came into production much later, already equals this number, and looks like taking more orders for some time to come. Admittedly, these two aircraft are hardly similar, but the comparison is not so far out if looked at in a certain light.

Many people, when seeing comparative figures, are surprised to see how many American aircraft are sold in competition to our own home products. The British aircraft industry is often well ahead of its rivals with ideas and good designs, but rarely seems able to follow these up after the first prototype has flown. The closing of the ranks, and the bringing together of a number of firms into three large groups, has done much to help, but the whole British industry put together is hardly larger than one of the major American corporations.

This, in my opinion, is worth remembering when comparing sales figures, plus the fact that in many cases the Americans get considerable support in development costs by the placing of a military order for a version of a civil airliner. The Boeing 707 started life this way.

Another reason for the American supremacy is, without doubt, the way in which their industry can afford to tackle research problems. Whole teams of scientists and research workers are started off on the same broad outlines, approaching a problem from many different angles. Only after each idea has progressed some way is the most promising one selected, and all the teams settle down to getting this solved as quickly as possible. The obvious advantage to be seen here is manpower, which the Americans have and we lack. The two main airframe corporations, BAC and Hawker-Siddeley, now that both have settled down after the mergers, are using these methods, and both the BAC-111 and VC-10 have been conceived by a number of design teams working in different divisions within the parent company.

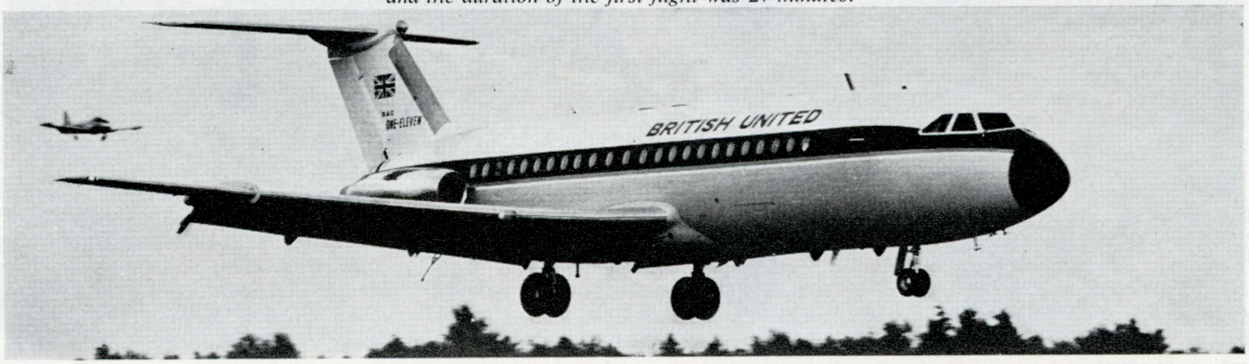
The results can well be seen, and I sincerely hope that overflowing order books follow, as the manufacturers assure us they will.

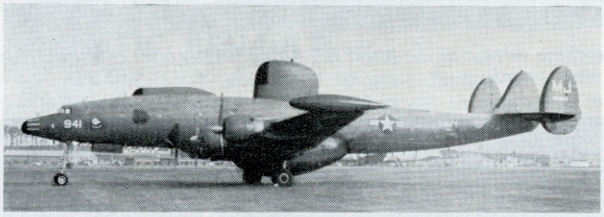
★ I wonder how many readers saw the model aircraft collection at RAF Wyton during the Battle of Britain 'Open Day'? Judging by the tremendous enthusiasm shown by the thousands of people there, my colleagues, Dick Ward, Dave Cook, and I, just about passed out at the end of the day after answering hundreds of questions about the collection and how it all began. To give those who didn't see the show, and others who would have liked to stay but were tempted away by the real-life aircraft outside, it is worth saying a few words about building up the collection, which is now almost 1,000 strong.

I suppose that a great many model makers have the same difficulties as we did. Our own individual collections were rapidly taking over our respective homes, all the cupboards were hide-aways for them, the ceilings were covered with them and our wives created havoc with the painstakingly-constructed museum pieces which happened to be left on sideboards and mantelpieces. The problem resolved itself when we all met one day with the same thought in mind. Our answer was to join forces, give exhibitions and store the precious results of our labours away until required.

Since then, we have given many shows together and have learned a great deal. When a new kit comes out we decide which of us will make it up straight from the box, who will change the markings and who will make a thorough conversion job. On average we seem to turn out about 150-200 models a year between us, and these go into the store as

The first BAC-111 made its maiden flight from Bournemouth (Hurn) airport on August 20. Several taxi-runs were made during the day and the duration of the first flight was 27 minutes.





Another newcomer to the American business aircraft market is this turboprop powered Beechcraft King Air (top). *Designed to take up to eight passengers, first deliveries will take place in the autumn of* 1964. *A rare bird at Prestwick* (above). *Mr. R. W. Brown sent us this picture of a Lockheed EC-121M used by the US Navy as a long-range early warning radar picket. Although a standard aircraft, there appears to be a new bulge on the top of the fuselage forward of the dorsal radome.*

soon as the space at home begins to get overcrowded.

The non-kit models are made almost entirely from balsa and obechi woods. Many plastic parts, such as propellers, undercarriages and engine nacelles, are taken from standard kits, and we tend to specialise in periods of our own individual choice. Being the oldest in the trio, and having a delight in rigging biplane models, I have the job of creating all the pre-1939 aircraft. Dave, who is the most prolific, produces the 1939-45 war period, and Dick covers most of the post-war models. This prevents overlapping, and the tendency to overpopulate certain sections.

Many of the questions put by fellow model makers at Wyton were of a technical nature. 'How do you get such perfect cockpit canopies?' 'How can I make transfers up to your standard?' 'Where do you get all your scale plans from?' and many more. Now that the darker evenings are upon us, and many of you are settling down to a winter of serious modelling, I'm sure that it won't go amiss if I included a few of the hints and tips.

To begin with, how about cockpit canopies? The actual manufacture of canopies I will deal with at a later date, my subject this month is the problem of getting fine lines painted on them to simulate the actual divisions.

There are quite a number of ways of doing this job, but I find that one of three methods always fits the bill. Firstly, there's the hard way, that of using a fine brush and painting direct on the canopy before or after it's fixed on the model. For this, the model maker will need a very fine sable brush. Nothing but the best will do, and it is a case of a few bob well spent to get the right sort. Any of the best manufacturers, Winsor and Newton, Rowney or Reeves supply good sables, about size 1, for three or four shillings.

See that the consistency of your paint is just right. If you get it too thick, the brush picks up too much colour, and if it's too thin it dries streaky and you'll have the added hazard of repainting an extremely fine line that never looks right after the second application. Always try the colour out first, and avoid unnecessary mistakes that you will regret later. If the canopy is already on the model, build up a ledge for your hand with books so that you've got the advantage of a good working angle.

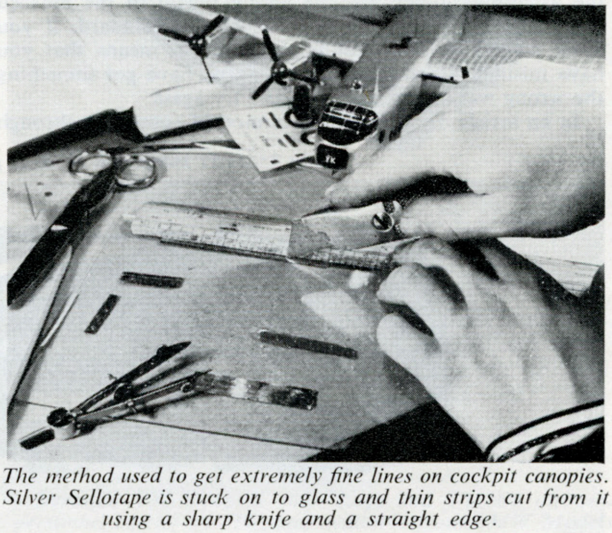
The next method is to use transfers. Many model shops sell strips of colour, made by Yeomans, which can be cut into very fine lines with a sharp modelling knife, a steel straight edge and a hard surface underneath. I use this method when I want to get a white outline to a division of a different colour. The white is stuck on first and the other colour laid on top. Aircraft needing this treatment in the Airfix range are such types as the Lightning, F-104 and Fiat G91.

The third and last method is perhaps the best. Here I use Sellotape cut in lengths of about six inches and stuck to a sheet of glass. Any colour you like from the range of enamels used to paint the model's camouflage pattern can be used to lay a paint ground. After leaving the colour to dry thoroughly, I use the same method described in the previous paragraph, and cut very fine strips using a sharp knife and steel straight edge. The strips are peeled off and stuck directly on to the canopy, as shown in the photograph.

You can purchase silver, black or white Sellotape for about 1s 9d, which of course doesn't need painting and makes a first-class job on any model. Take care in going round or over curved surfaces. You may need to nick the edge just a little to get it to lay flat—experience will tell you just how far you can go with this and still get away with it.

★ Just in time for the winter season. Shorrocks, the manufacturers of those excellent VHF receivers, have brought out a new model which will enable those of you who prefer to do your spotting by the fireside during the winter months to take advantage of a greatly improved piece of equipment. The new Mark V receiver has a much neater case, a wider coverage on the VHF bands, a larger speaker and several other refinements for the same price of £36 7s 6d.

Although I have only been able to try this new set out for a couple of weeks, I can testify to the improved reception that it gives. The main criticism of both models is in the tuning, which is very difficult to operate if you are in a hurry to change frequencies.



The method used to get extremely fine lines on cockpit canopies. Silver Sellotape is stuck on to glass and thin strips cut from it using a sharp knife and a straight edge.

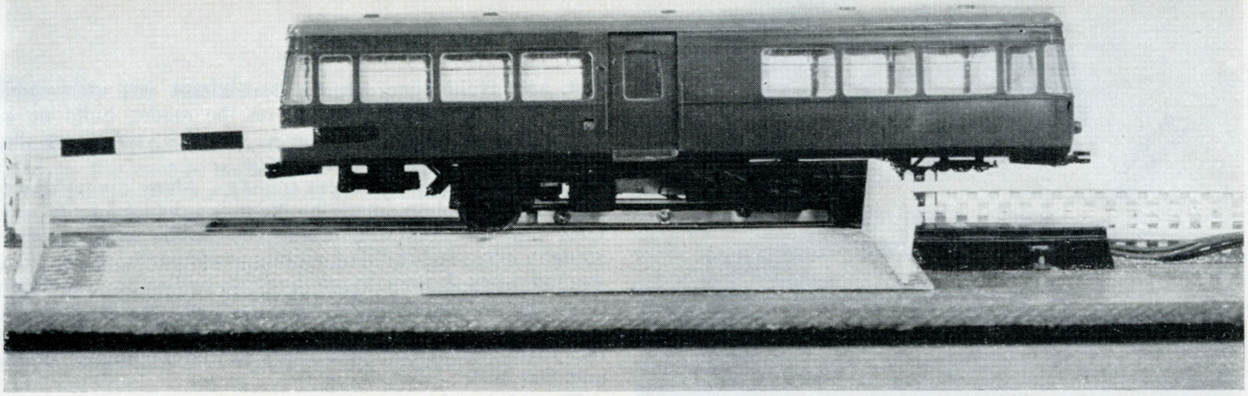


Photo 1: Eames motorisation of Airfix railbus. It is seen crossing a working version of the latest BR lifting barrier level crossing. This will be described next month.

Plastic Modelling

by Mike Bryant

MOTORISING THE AIRFIX RAILBUS

FOR some time, the Editor has had a steady flow of requests from readers for information on motorising the Airfix railbus. Alex Bowie wrote on this subject some while back, but as the issue of AIRFIX MAGAZINE containing his article is now out of print I have been asked to produce my version of the motorisation. Whilst any motorisation job can be comparatively easy, provided you take care and work to reasonable standards of accuracy, there are still quite a number of people who have not got the necessary skill or self-confidence to tackle a job of this nature. Even these people need not despair, however, because Eames of Reading have an excellent kit on the market (see footnote) that takes nearly all the pitfalls out of the job. So let us look first at this way of doing the conversion.

THE EAMES KIT

This consists of a set of white metal castings, ready-soldered collector wires and connections, wheels, gears, etc. You will also need a Tri-ang XO4 motor, which is not included in the kit. When ordering the kit, you must specify what wheel standards you are using, as there are kits for Scale/Hornby Dublo and another for Tri-ang standards.

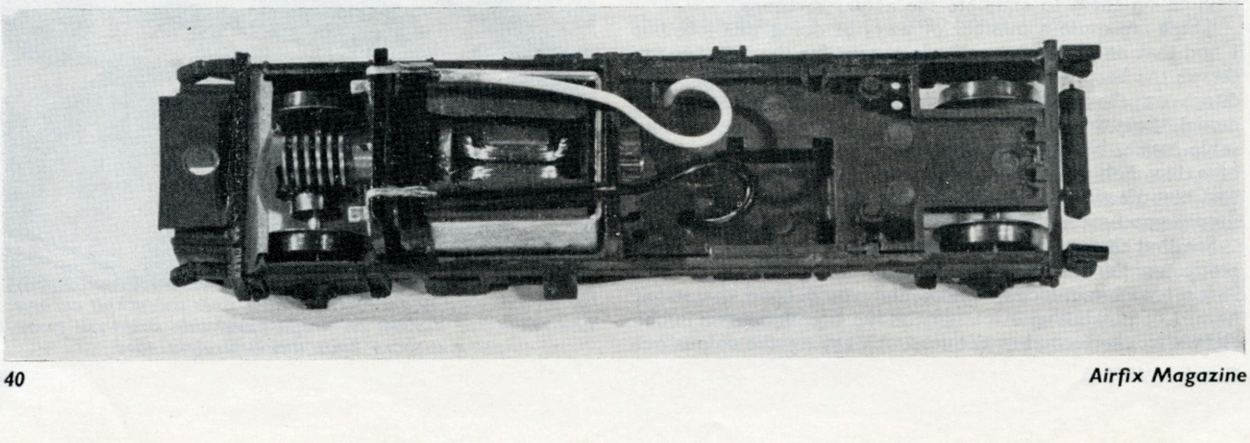
The white metal castings are clean and free from 'flash', but before you start removing what you think are bits of excess metal, read the instructions carefully, identifying the various parts and seeing how they fit together. You will find that a bit of extra care at this stage, *before* you start the assembly proper, will be amply repaid in the finished result. As a general rule in a kit of this standard, if you think something does not fit, it probably means that you have misunderstood the instructions, or have got something the wrong way round! So read and try again.

In an article of this length I cannot, of course, go through the method of assembly in detail—nor is it necessary to do so because the makers' instructions and diagrams are clear and easy to follow, even for a beginner. All the hard work is done for you and the only tools you need are a sharp knife, a file and a screwdriver. I would emphasise that this is a 'no soldering' kit, which will recommend it to many readers.

DO-IT-YOURSELF MOTORISATION

For my own version, I thought I would use the new Airfix motor. This has the great advantages of being inexpensive and extremely compact. It is virtually tailor-made for this particular motorisation, nestling very neatly

Photo 2: Airfix motor and W & H parts version—top view showing gearing.



between the sideframes, completely hidden by the underframe detail and protruding only about a quarter of an inch into the body of the bus.

As is the case with all home-made conversions and motorisations, one of the chief difficulties is deciding on the right components to use, and then finding a shop which sells them *all*. I have therefore arranged with W & H (Models) Ltd, 23 Paddington Street, Baker Street, London, W1 to supply a complete set of components, as detailed in this article, for 12s, post paid (see footnote). You will also need an Airfix Motor at 10s 6d.

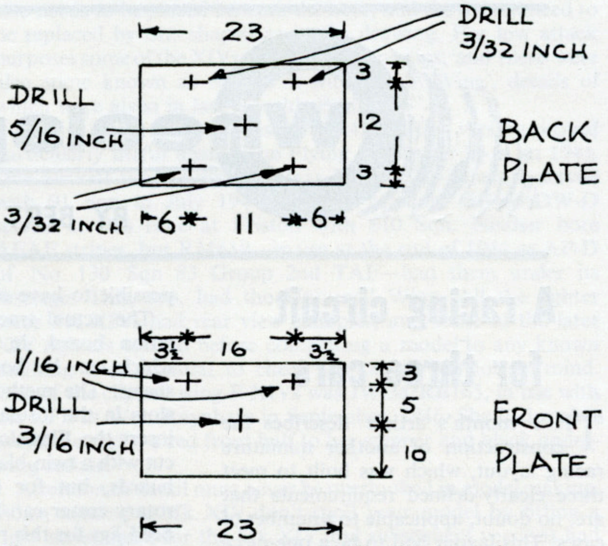
As with all motorisations, start with the chassis and leave the body until everything is working satisfactorily. Carefully drill the axle holes in parts 5 and 10 until the Peco brass bearing cups are a firm push-fit in them. Cut part 2 across just ahead of the main engine moulding (photo 3). Cement Part 1 to Part 2, and the sideframes (5 and 10) to the truncated underframe (2), slipping the wheels in place before cementing. Leave to set on a dead flat piece of track or board and check that there is no 'rock' or 'twist' in the chassis before the cement hardens. Leave overnight. Add the end details (11 to 21).

MOTOR MOUNTING

Cut the two motor mounting plates from .04 inch Plastikard, or thickish scrap plastic, and drill them as shown in the sketch. With a sharp modelling knife, trim the black plastic front plate of the Airfix motor flush with the metal motor casing. The back mounting plate fits over the four plastic lugs on the spur gear end of the motor, the front mounting plate over the two brass pillars which secure the brush springs in place, with the bared ends of two insulated leads trapped in the holes. Be careful not to force on this front plate too far or you will damage the four tiny plastic 'pips' which form guides for the brush springs. *On no account* must the springs be interfered with in any way, nor must there be any pressure on the brushes apart from their own springs.

The worm can now be locked on the armature shaft by its set screw, leaving just fractional end play. The two motor mounting plates, with the motor in place between them, can now be cemented between the sideframes, with the worm meshing with the worm wheel. Check that the mesh is correct (just a little 'play') before the cement hardens and then leave until everything has well and truly set.

The current collectors are the lengths of nickel silver wire in the W and H kit, and are arranged to bear lightly but firmly on the backs of the wheels. They are passed through two stretchers of plastic with short collars of insulation from the excess insulated wire to stop them sliding up and down. The two motor leads are soldered to the collector wires. The collector system shows clearly in photo 3.



The two motor mounting plates. Drill all holes before cutting to size. The drill sizes are given in inches, the measurements in mm.

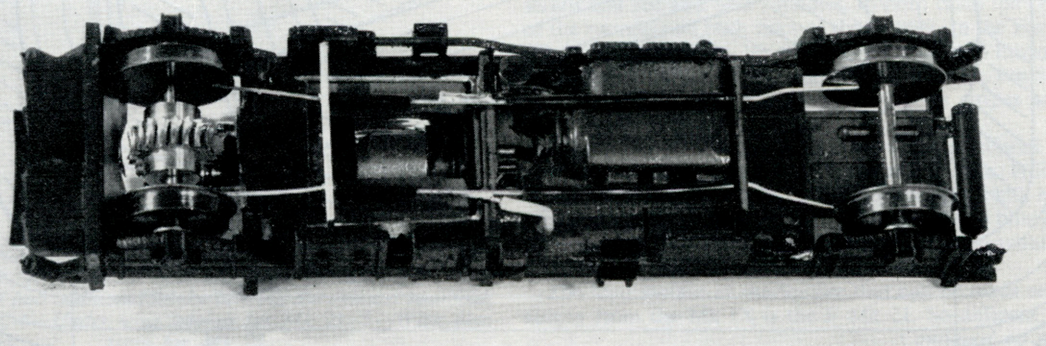
THE BODY

A hole to clear the motor is cut in the floor of the railbus, but apart from this the body can be made up as per the Airfix instructions. The floor is naturally weakened, but when the roof is cemented in place everything is stiffened up nicely. Add some lead sheet, putty or Plasticine inside the floor at each end to give stability and adhesion.

Copyright, Mike Bryant, 1963

[The Mike Bryant/W & H Models Airfix railbus motorisation kit comprises the following: one pair of wheels and one pair of wheels with worm wheel fitted (state whether scale or Hornby-Dublo standards are required); one worm; four Peco bearing cups; two 4-in lengths N/S collector wire; and one 6-in length plastic insulated connecting wire. Retail price of the kit is 12s (post paid) from W & H (Models) Ltd, 23 Paddington St, Baker St, London, W1. The Eames kit is priced at 21s 3d (plus 12s 10d for a Tri-ang X04 motor). They are both obtainable from Eames at 24 Tudor Road, Station Hill, Reading, Berks.]

Photo 3: Underneath view of Mike Bryant's Airfix motorised railbus, showing collectors.



Wheelspin

BY BERT LAMKIN

A racing circuit for three cars

THIS month's article describes the construction of another miniature racing layout, which was built to meet three clearly-defined requirements that are, no doubt, applicable to a number of cases. This layout had to be a one-piece unit, giving maximum lap lengths with reasonable equalisation of laps, and have room for three cars to run in a relatively small area.

It was also decided to incorporate varying radius curves on the individual lanes, which rather rules out normal commercial track sections. Therefore, as a change from previous methods, I used a product known as 'Flexislot'. This is a plastic extrusion with three slots, a central one for the guide pin, and a smaller one either side to take the conductor wire. Flexislot is obtainable in 100 ft lengths, so it is possible to have only one joint per lap.

The actual track base was an insulation board, in this case 'Sundeala' which can be bought in normal-sized sheets. The method is to rout out the slots in the insulation board, and then insert the Flexislot. These slots can be cut with a twin-bladed knife in the softer boards, but for the harder variety a rotary cutter can be used. But you will need jigs for this really, unless you have a very steady hand.

Cut into sections

For ease of cutting the slots, the Sundeala board was cut into sections—these are shown on the plan. If one has plenty of room, larger sections could be coped with. These particular sections are all eight inches wide.

Before beginning the actual construction, a scale plan was made, based on an overall size of 8 ft × 4 ft, this being the maximum size permissible. You will see from the plan how the curves on the three lanes vary, the idea being to even things a bit between the inner and outer lanes. With such a narrow road, it was not possible to take the full-size line through the corners—this could be achieved with a 12 inch, or wider, roadway.

In making the flyover, the transition from horizontal to incline was produced in a curve. This was done by sawing partly through across the sections at about one inch spacing; the insulation board will then bend where required.

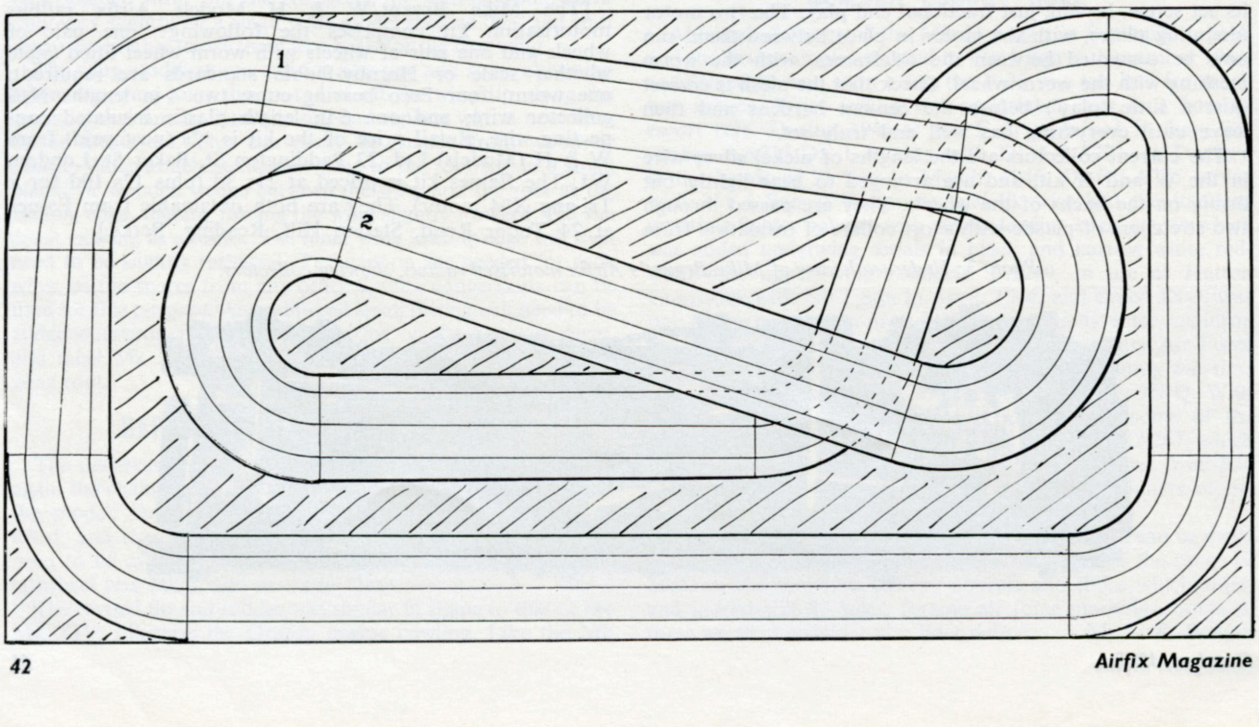
This track was not based on any actual circuit, nor was it intended to equip it with the usual circuit features, such as buildings, etc. It is purely a circuit on which to race miniature cars.

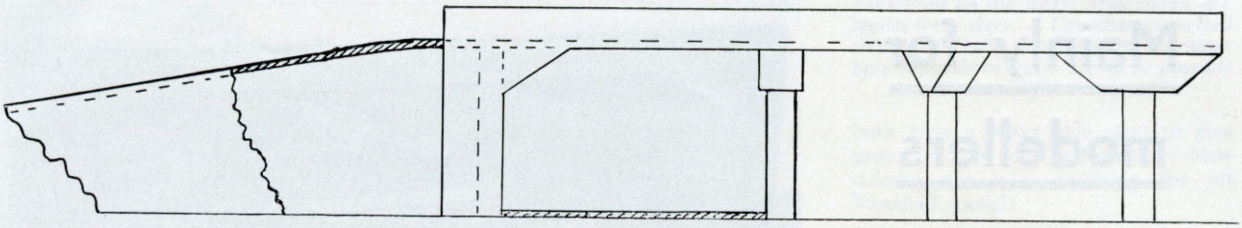
The baseboard

To revert to the actual construction, the first thing to make was the base. This was a sheet of hardboard 8 ft × 4 ft, pinned and screwed to a framework of 2 in×1 in deal. The Sundeala board was then marked and cut into sections as per the plan. After marking, carefully, the positions of the slots on the straights, the actual slots were cut. With Celotex and similar boards, the knife method can be used, taking care and not attempting to rush things. (You will find that this remark applies in all modelling spheres, and is so right.)

You must press the blades into the board rather than try to slice it. On the straights a steel straight-edge will help, and a jig cut from sheet aluminium would steady your hand on the curves.

Plan view of the three-lane circuit described this month, showing sections and centre line of slots. Base measured 8 ft by 4 ft.

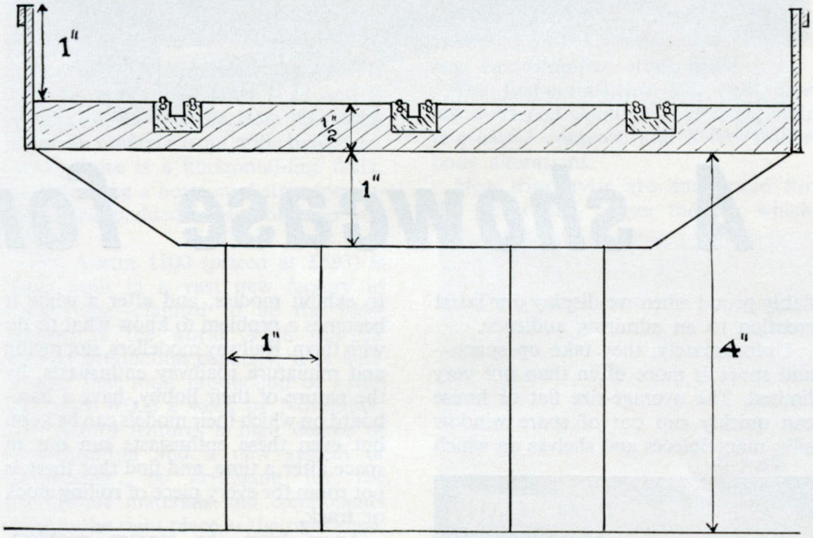




Method of supporting the flyover. Bridge sides were cut from hardboard, using small wood fillets to fasten them to the baseboard.

When the actual sides of the slot have been cut, then a small router plane, which can be bought from most tool shops, is used for removing the material between. If you decide to use Flexislot, you can get a leaflet from your model shop which gives more detailed instructions.

After all the sections had been slotted they were then glued, using Evostick, to the hardboard base (the positions having already been marked) with the exception of the three forming the flyover. These three pieces forming the elevated part of the track were then joined together. This unit was placed in position, and temporarily supported where it crossed the level track, allowing four inches headroom—about 10 scale feet. The two ends (1 and 2 on the plan) were then glued to the baseboard, using weights to keep them in position.



Details and measurements of the wood piers. The modern-style architecture is very easy to reproduce in model form.

By virtue of the saw cuts previously referred to, the transition between the two levels was a gradual curve. The bridge sides were then cut from hardboard, using small wood fillets to fasten them to the baseboard. The semi-circle was then supported on wood piers, using motorway architecture as a pattern. (The modern style is much easier to reproduce, with its simplicity of line.) With the curved portion of the flyover supported it was then possible to cut hardboard sides for the inclines, and fix these in position. Sketch B shows the idea. As the flyover crosses at an angle, the abutments will vary.

When the flyover was completed I ran a three-inch strip of hardboard all round the baseboard. This provides a barrier where the track is adjacent to the sides, and contains the landscaping in the corners. With the track surface half an inch above the base, some filling was required. This was achieved with lengths of 1 in $\times \frac{1}{2}$ in deal, and a discarded linen sheet. The odd corners were filled with Polyfilla. Crumpled newspaper was used under the linen. This tends to give a 'broken ground' effect when painted; so for smoother ground thin card supported the linen.

One point I should mention in mounting Flexislot—on the curves run some Evostick along the bottom of the slot before inserting the plastic. This stops the tendency for it to lift at the bends.

Smooth surface

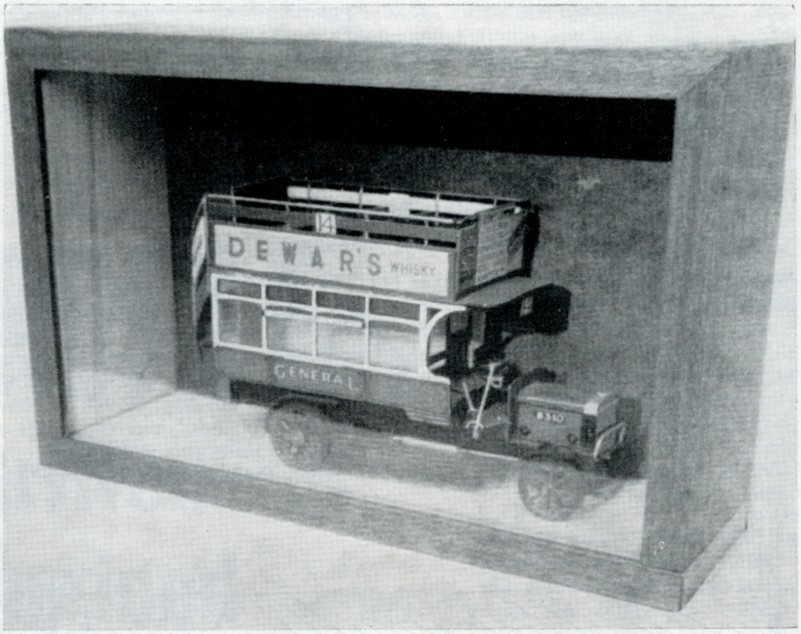
When the actual track was complete, and before adding the trimmings, I wired the three lanes and tested a car. This method of construction produces a very smooth and even surface and I think this feature of Flexislot calls for a one-piece circuit. The conductor 'rails' are nearer the guide slot than Airfix, etc, so the cars need a slight modification. I will deal with this later, when we have tested the circuit thoroughly.

An Airfix Bentley for slot racing

Reader M. A. Hundleby, of Hazel Grove, Cheshire, sent us this picture of an Airfix Bentley, which he motorised for slot racing. He used a Tri-ang motor, and says the model works remarkably well.

Mainly for modellers

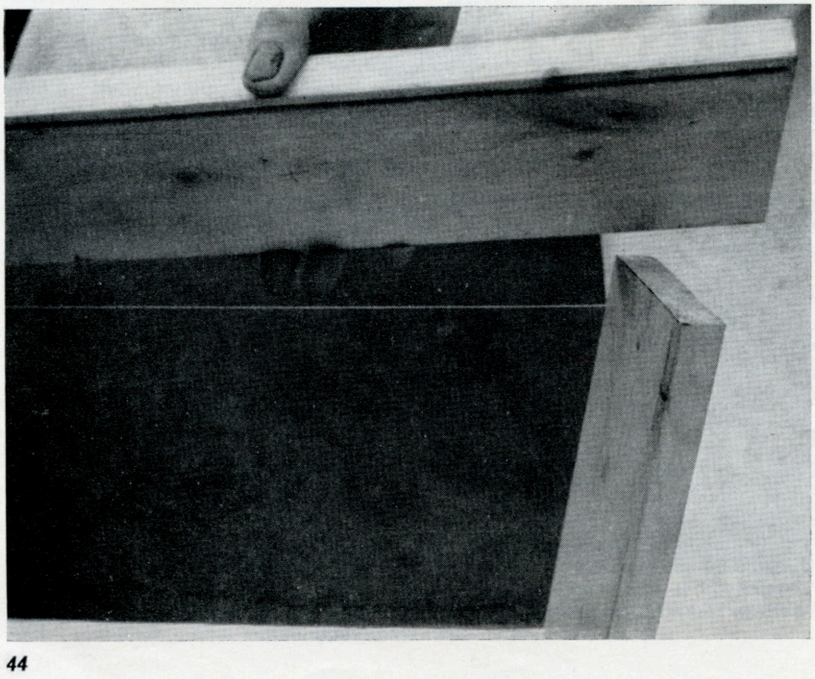
NORMAN SIMMONS DISCUSSES THE PROBLEMS OF STORING MODELS, AND DESCRIBES A CHEAP WAY YOU CAN BUILD



A showcase for

BUILDING plastic kits is an absorbing pastime, but not the least satisfying aspect of the hobby is the viewing and displaying of successfully-completed models. The majority of them are attractive, even decorative, and more often than not we can feel justifiably proud when we display our latest creation to an admiring audience.

Unfortunately, they take up space—and space is more often than not very limited. The average-size flat or house can quickly run out of spare window sills, mantelpieces and shelves on which to exhibit models, and after a while it becomes a problem to know what to do with them. Railway modellers, slot racing and miniature roadway enthusiasts, by the nature of their hobby, have a baseboard on which their models can be kept, but even these enthusiasts run out of space after a time, and find that there is not room for every piece of rolling stock or track.



Apart from the storage problem, there is the necessity to protect models. They are often rather fragile and can easily suffer from too much handling. 'Does it work?' we are asked, usually at the same time as the enquirer is finding out for himself that it doesn't, and off comes another part that has to be stuck on again.

Yet another problem is that, however nice our models look, the majority of them are dust collectors when they are left exposed, and under these conditions can quickly offend the eye of the lady of the house, whether she be mother, wife, landlady or aunt. In extreme cases the ladies can be a real threat to the continuation of the hobby, and com-

Top picture shows completed glass-fronted case for the B-type. The background could be painted to give quite a realistic effect. Left picture shows one of the sides being fixed in place, at the same time accommodating the glass.

the Airfix B-type

plaints of the presence of a dust-encrusted model cannot be overlooked for ever.

Clearly, then, most plastic modellers are faced, sooner or later, with having to investigate the problem of storing completed models. Very few of us can bring ourselves to part with our models just to make room for constructing more, so if we want to carry on modelling we have got to find somewhere to put them.

The Airfix 'General' B-type bus was uppermost in my mind when thinking about this subject. The sight of a painstakingly-assembled model gradually shedding parts through constant handling, collecting dust and looking the worst for wear decided me to do something about it. What could be better than a glass showcase! I suppose such things can be bought, but where, and at what price? Perhaps a jumble sale might supply a sample which, after the removal of a stuffed owl, or some other species, would be suitable, but I was not very hopeful of picking one up that way, so I made up my mind to have a go at making one.

I decided, at least for the first experiment, to make the showcase as simple as possible. However nice it might be to view the model from all angles, I felt that from the point of view of my limited woodworking ability, tools and time it must be the simplest and cheapest possible. I think the showcase I have illustrated fits the bill.

The glass was purchased first, since the rest of the case is built up round it. A piece of glass not more than 10 in × 7 in would be about right for the B-type, and a local home decorating shop supplied this for ninepence. The local woodyard supplied a piece of softwood deal 4 in × ¾ in, four feet long, for 2s 2d. A better quality wood, perhaps not so thick—say only ½ in—would have been preferable, but not all woodyards appear to be very well stocked these days, and one has to make the best of what one is offered. A piece of hardboard for the back cost no more than a shilling.

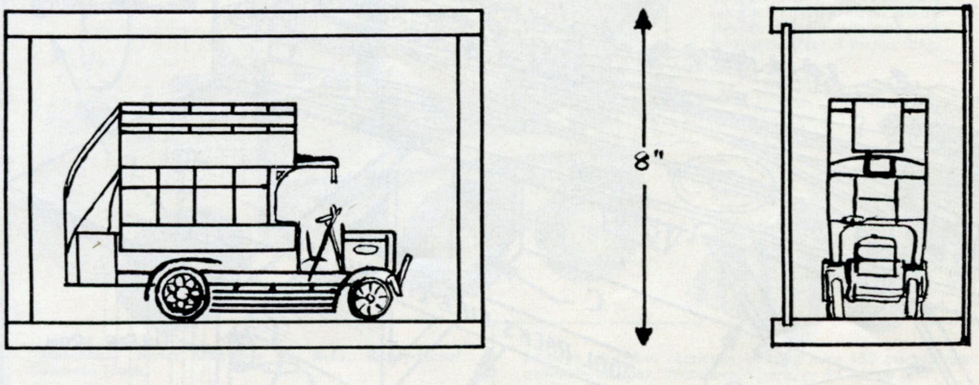
Construction began by cutting a groove along the whole length of the wood. The groove is just wide enough for the glass to slot into, and deep enough to hold it in place, say about ⅛ in. I cut the groove as near to one edge as possible and, in fact, allowed about ¼ in clear. Cutting such a groove would be no problem with a rabbetter, or an electric drill with circular saw attachment, but having none of these I used a tenon saw. This was perhaps a little tedious, especially as the saw cut needed to be widened to take the glass. With the soft deal used an ordinary marking gauge helped to accomplish this. The groove was finished off by carefully sliding one corner of the glass along the whole length several times, and removing all the rough spots.

Two pieces, about one foot long, to form the base and top of the case were each cut from the 4 in × ¾ in deal and the glass slotted in place. The top and base can be trimmed to size after assembly. The exact length for the sides was then measured, cut and fitted into place, taking care to slot the glass in place evenly. The case was squared up with a setsquare and the top glued and nailed to the sides. The hardboard back was then glued and pinned in place. The base was simply fitted in place with two screws, one to each side. If the model is securely fixed in place to the base (and this will be necessary if the showcase is to be moved) it should be perfectly possible to turn the showcase upside down to remove the base with the model attached.

If, on the other hand, this is not possible, it is quite an easy matter to place one end of the showcase over the side of a table and remove the screws from below. If necessary the glass can be removed for cleaning purposes and this also gives the opportunity to reach the interior of the showcase if later you might want to add a few scenic details to the back and sides. One such idea would be to paint a street scene backcloth, with perhaps a pavement and bus stop sign in the foreground.

The advantage of this showcase, apart from its extreme simplicity and cheapness, is its robustness and storage possibilities. Apart from the more usual display points, it could be regarded as a three-dimensional picture and hung on a wall or suspended from beneath a shelf. It could also be stood on a book shelf to act as a book end or to fill in space while books are in use or on loan.

Various other possibilities come to mind, and if the idea of a solid back and sides does not appeal to you it would be perfectly possible to construct a de luxe version with more viewing positions. This and other aspects of the storage problem could perhaps be examined in later articles. Meanwhile, keep on assembling those kits—you'll find room for the finished models somewhere!



Measurements and construction details of a simple - to - build glass showcase for the Airfix B-type bus.

LAYOUT REALISM

by Alex Bowie

I HAVE had enquiries from several people about the use of lofts or sheds for housing model railways. Frankly, I don't think that general advice on altering lofts will be of much use to anybody. Quite rightly, local councils insist that expert advice be taken and plans submitted if major structural alterations are involved, or alternatively that plans be approved by them if drawn up by an amateur.

A shed is a different matter. If you happen to have one, it can be made into a comfortable railway or hobby room, and now's the time to start, before the cold weather sets in. Even if the shed is only a small one, say the common size of 6×4 ft, it will be possible to use it as the terminus for a small layout, running the rest in the open. The new plastic sleepered track will stand up to outdoor use, so that OO gauge can now take its place alongside the bigger gauges as being suitable for garden railways.

Now back to the shed. Wood is one of the warmest materials, but the popular half-inch match-boarding isn't really sufficient to keep the interior of the shed warm and dry enough all the year round. There may also be condensation on humid or damp days, though this is nothing like as bad as with asbestos or single-thickness brick buildings.

The interior can be lined, and the lining will create an air pocket between itself and the outer walls, which will give additional warmth. There are three feasible materials—hardboard; soft or insulation board; and Stramit. Now hardboard has poor insulating qualities and is not very sound-absorbent; nor is it warm in itself. It is cheap, though. Softboard is warm, sound-absorbent, but in most areas is a little dearer than hardboard. Stramit is two-inch-thick compressed straw, very warm and sound-absorbent and, strangely enough, highly fire resistant. You can take your choice, but for most people softboard will be adequate, and I'll describe lining a shed with this material.

But, firstly, a few yards of felt might be needed on the roof. And, secondly, old wood can let in water in time, and if there are any cracks or gaps between boards there is another source of leakage. Plug these with what is called 'Swedish putty', a mixture of Alabastine or Polyfilla and old paint, as described on the carton. There are also numerous mastics or waterproofing compounds on sale that will do the job.

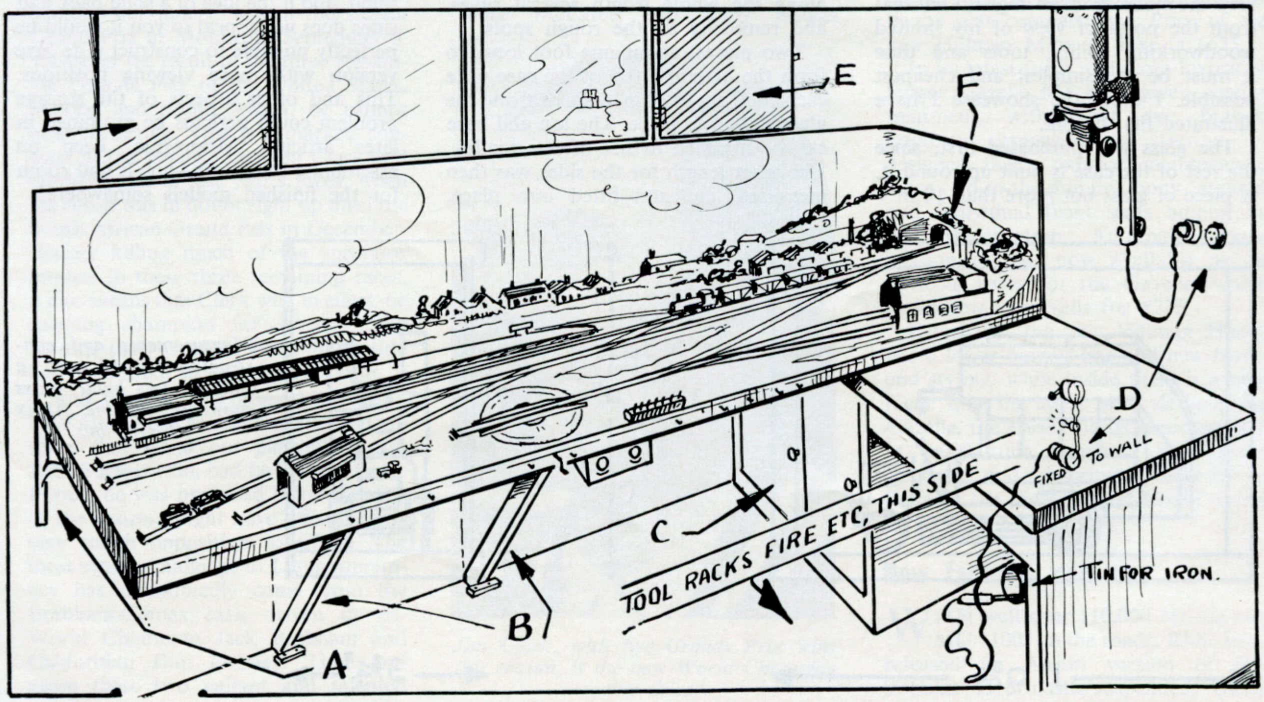
KEEPING THE WET OUT

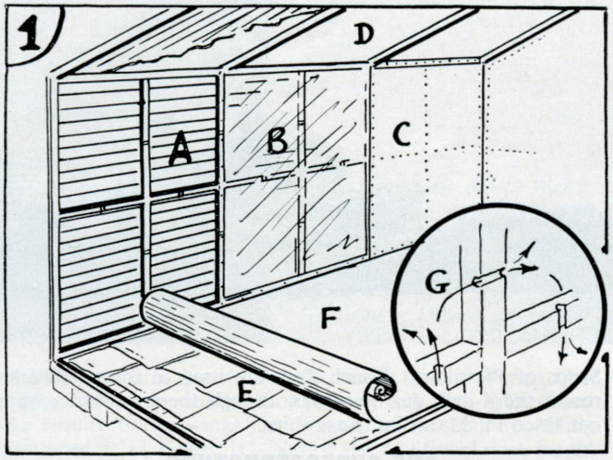
A new coating of creosote is necessary on an old shed or, better still, a coat of paint, or waterproofing solution such as Aquseal. But bear in mind that you can't paint over new creosote or over most waterproofing solutions.

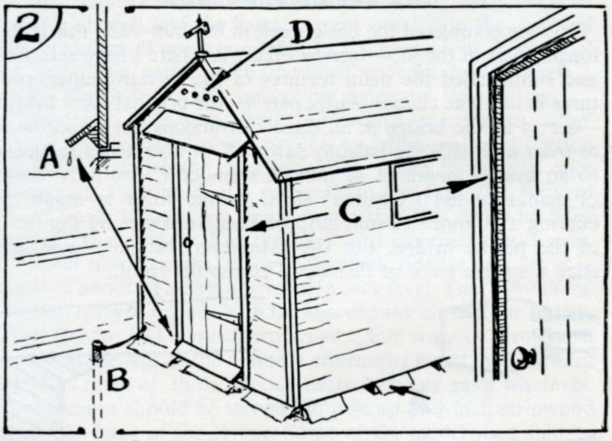
Now for a cheap *internal* waterproofer. Tack polythene sheets all over the walls. Very large sheets are used as painters' dust-cloths and are amazingly cheap. Do they keep the wet out? They should do, for in some new commercial buildings sheets of the material are being sandwiched between cement to make damp-proof floors.

The softboard is then nailed over the polythene, and given a coat of sky blue emulsion or distemper. This leaves the roof, which can be lined with softboard, but a cheaper and easier-to-use material is Kotina, which is expanded polystyrene in thin sheets. This is really intended to be pasted on walls, underneath wallpaper, and is very warmth-retaining and water-resistant. Paste it on the shed ceiling. Your local paint shop will tell you all about it.

See that no moisture is creeping upwards from the ground







This month's five drawings show the general layout and construction of a comfortable hobby room built in a garden shed. They are fully explained in the text.

level, and that none is coming in through window and door. Assuming that the shed has a wooden floor, creosote or otherwise damp-proof it underneath. Don't creosote a damp wall, though. Wait for it to dry. For any floor, wood or concrete, spread as many newspapers as your can find evenly over the floor, and lay a roll of roofing felt over the newspapers. This will give you a combined floor covering, warmth retainer and damp excluder at the cheapest possible price.

OTHER FLOORING MATERIALS

For a de luxe version, softboard would be a warm underlay, or there is a special cork granulated lino underlay, with a tarred felt damp-proof base, one version of which is called Linovent.

The baseboard needs the minimum of support, for the shed itself can be pressed into service to support the back. But if a work-bench is required, good solid legs are essential or, better still, an old cupboard or chest of drawers. Only one thing though. It's no use having a solid bench on a rickety wood floor. If this is at all flimsy, pack a few bricks underneath the joists. Place a piece of roofing felt, or two or three thicknesses of polythene, between bricks and joists to act as a damp-proof barrier between ground and wood.

There may be times when you feel that some heating is called for. The convector types of oil fire are reasonably safe, but I wouldn't use them without taking the most stringent precautions, particularly in a small shed without much elbow room. Furthermore, the fumes can be dangerous, if you forget about ventilating the shed.

A small electric radiant fire with a guard is safe, and this can be screwed high on a wall, beaming downwards. It must be earthed, particularly if there is a concrete floor. A good earth is made by hammering or burying a copper stake or one-inch copper tube in the ground, and attaching an earth wire to it. All joints must be soldered, and bound with adhesive. Soldering irons should also be earthed. For outdoor wiring, use the correct outdoor wire (PVC is good).

KEY TO THE SKETCHES

I have made a few sketches giving some pointers. In the main sketch, note that bracket A will adequately support the back of the baseboard, while 2×2 legs (B) can be canted inwards to give adequate support plus leg-room. The legs should support the baseboard at a point not more than 18 inches from the wall. In cramped space, see that all cupboard doors are hinged so that access is easy, opening towards you, as at C. Plugs are at D, and should be earthed. Note that a small low-wattage warning bulb will glow, showing that the soldering iron is on. Wire this in parallel with the iron socket. E is for model photographers, and shows hardboard shutters which can quickly convert the shed into a darkroom. F is the 'tunnel' to the garden. But here is a qualification. It is actually best at the door end, next to the opening edge. Then the whole track can be seen from the shed.

Figure 1 shows the step-by-step stages. A, the bare shed wall. B, the polythene waterproof sheet. C, softboard. D, Kotina. E, old newspapers or Linovent. F, roofing felt or lino. Cut a nick

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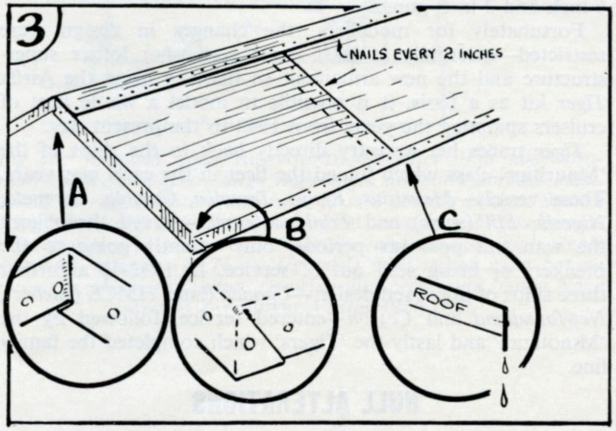
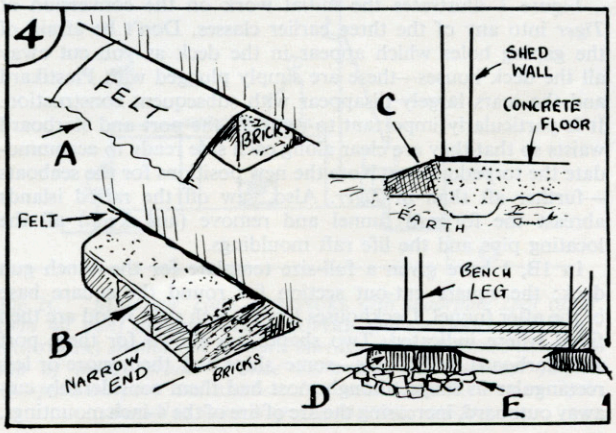
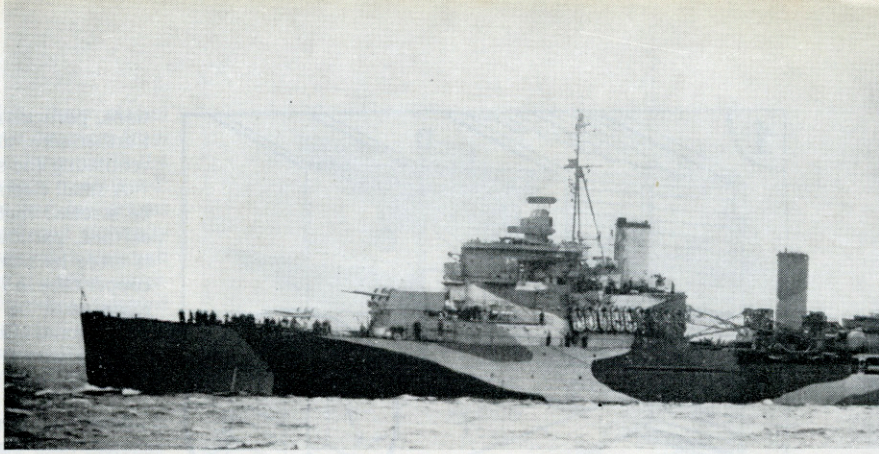




Warship modelling

by C. O. ELLIS



Cruiser conversions

From the Airfix HMS 'Tiger' kit

MOST readers will already be aware that the Royal Navy's three 'Tiger' class cruisers are very much 'new wines in old bottles', being basically World War 2 vessels considerably redesigned. Originally scheduled as units of the 'Minotaur' class—of which *Superb*, *Swiftsure* and *Minotaur* (later HMCS *Ontario*) were completed in 1944-45—the 'Tigers' were laid up for many years before eventually entering service in 1959-60, much changed in appearance and mounting the new automatic 6-inch and 3-inch guns.

Fortunately for modellers, the changes in design were restricted—externally at least—to a somewhat loftier superstructure and the new armament so that, by using the Airfix *Tiger* kit as a basis, it is possible to model a whole fleet of cruisers spanning the years from 1940 to the present day.

Tiger traces her ancestry directly back to the ships of the 'Mauritius' class which joined the fleet in the early war years. These vessels—*Mauritius*, *Kenya*, *Jamaica*, *Gambia*, *Bermuda*, *Nigeria*, *Fiji* (sunk) and *Trinidad* (sunk)—served throughout the war and post-war periods, only recently going to the breakers or being sold out of service. In 1942-43 a further three ships of improved design—*Uganda* (later HMCS *Quebec*), *Newfoundland* and *Ceylon*—entered service, followed by the 'Minotaurs' and lastly the 'Tigers' which completed the family line.

HULL ALTERATIONS

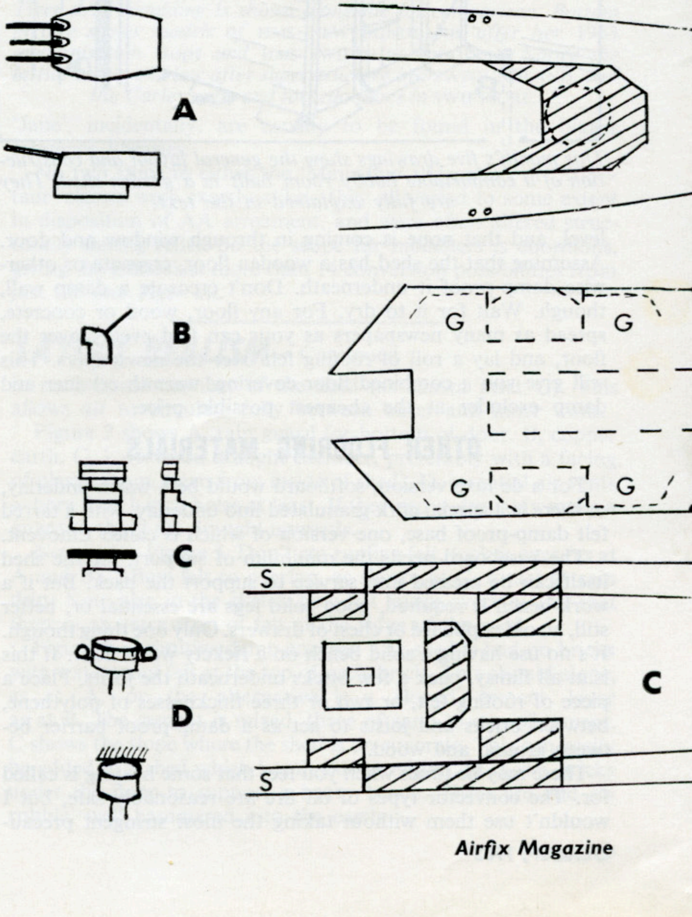
Figure 1 illustrates the initial work on the conversion of *Tiger* into any of the three earlier classes. Don't be afraid of the gaping holes which appear in the deck as you cut away all the deck houses—these are simply plugged with Plastikard and the scars largely disappear with subsequent construction. It is particularly important to remodel the port and starboard waists so that they are clear along each side ready to accommodate the torpedo tubes. Note the new positions for the seaboats—further aft than in *Tiger*. Also, saw off the raised islands abreast the forward funnel and remove (and keep) all the locating pips and the life raft mouldings.

In 1B, I have given a full-size template for the 4-inch gun deck; the square cut-out section fits round the square base of the after funnel. Deckhouses from $\frac{1}{8}$-inch strip wood are then fitted where indicated. Two shapes are shown for these port and starboard deckhouses—some ships had them more or less rectangular in shape, though most had them considerably cut-away outboard, increasing the arc of fire of the 4-inch mountings.

Strips of Plastikard $\frac{1}{16}$-inch deep are used to form bulwarks round the 4-inch gun positions, though these bulwarks were not fitted in 'Mauritius' class ships.

THE SUPERSTRUCTURE

Having completed the basic work in the hull—and this is the longest part of the job—turn to Figure 2, where I have sketched and summarised the main features of the forward superstructures in all three classes. Airfix part 4—the original *Tiger* bridge—serves as the bridge in all these conversions but *turned back to front* and with the balcony sawn off. It also needs reducing to an overall length of 30 mm. A rounded ('Mauritius' class) or semi-rounded ('Uganda' class) bridge front is made by curving a 30 mm × 10 mm strip of Plastikard around the front of the plastic bridge. For the 'Minotaur' bridge you simply stick a square piece of Plastikard across the front.



HMS JAMAICA *in World War 2, when she still carried a fourth 6-inch turret in X position. At this period she had two cranes and carried her motor-boats on the after super-structure. (Photo by Real Photographs Co Ltd.)*

All that remains is a 'wind baffle' made from a $\frac{1}{16}$-inch strip of Plastikard stuck round the top edge of the bridge. 'Minotaurs' also require bridge wings just forward of the 2pdr mounting positioned as in Figure 1C. Notice the additional deck height for the 'Mauritius' class—these ships were originally designed to carry aircraft and the hangars were situated in this forward superstructure. If you are modelling a ship (such as *Gambia*) of the mid-1950s period with modified covered bridge, then a simple Plastikard 'roof' suffices to represent this feature.

'Minotaur' class ships have the prominent cut-away 'step' abreast the forward funnel, so this is an additional modification you must make to the deck moulding, filling in the gap once again with Plastikard. To compensate for this, the forward funnel needs lengthening and I found that this could be done very effectively by binding the base with gummed parcel strip.

Tripod masts can be made from thick bristles and set to a height of about $1\frac{3}{4}$ inches above main deck level. The 'Minotaurs' had well splayed tripods with the legs coming abreast the funnel, while *Quebec* had a much truncated affair without a topmast. Note that the legs of the main (ie aftermost) masts lead forward and that none of these tripod masts has any rake whatever. The foremast should be stepped in a scrap of $\frac{1}{8}$-inch stripwood across the back of the bridge. Some of the modernised ships—*Newfoundland, Ceylon* and *Mysore*—have lattice masts and these can be made from mainmasts supplied in the *Tiger* kit. The foremast requires a cheese-shaped aerial at the top and a parabolic aerial (from the kit) on a platform as shown in Figure 2B. A gaff for the ensign and yards are the main modifications for the mainmast. *Ceylon* is the odd ship out in the lattice mast fraternity—she retained her tripod mainmast after modernisation.

Other modifications and additions are the removal of the

Continued on next page

Fig 3 (left drawings): *A—Triple 6-inch turrets—make from balsa. Three per ship except 'Mauritius' class as built, which carried four. B—Twin 4-inch mountings—make from balsa or use mountings from* WARSPITE *kit. Four per ship except 'Minotaur' class which mount five. C—Main director tower—make from balsa or scrap plastic. Earlier World War 2 type of radar shown below. D—High angle directors. Upper—large type as fitted in* NEWFOUNDLAND, SUPERB, ONTARIO, MYSORE. *Lower—smaller type fitted to remainder. Make from largest diameter plastic sprue. Radar nacelles on larger director made from deck locating pips. Fig* 1 (right drawings): *A—Shortening the after shelter deck—fill gap and bulkheads with Plastikard. B—Full-size template for 4-inch gun deck. Dotted lines indicate positions of deckhouses and position of bulwarks round guns in 'Uganda' and 'Minotaur' classes; these bulwarks are omitted in 'Mauritius' class. (G—positions of 4-inch mountings.) C—Midship alterations—remove all shaded parts and plug holes with Plastikard or card. Leave waist clear port and starboard for torpedo tubes. (S—re-site seaboats (whalers) here.)*

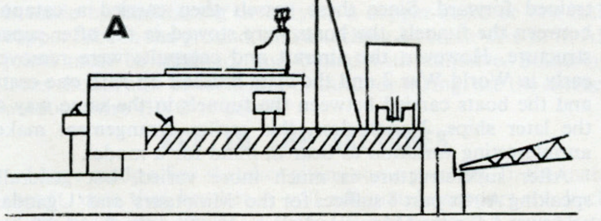


Fig 2A: 'Mauritius' class. Build up superstructure (shaded) with $\frac{1}{8}$ inch stripwood. Quadruple 2pdr (later, twin 40 mm) abreast funnels. JAMAICA, GAMBIA, BERMUDA, *refitted mid-1950s with covered bridges. Rounded bridge front.*

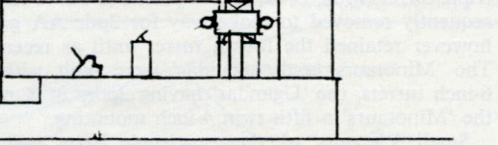


Fig 2B: 'Uganda' class. NEWFOUNDLAND *after* 1953 *modernisation. Lattice foremast; large high angle directors abreast mast. Small barrage directors and twin* 40 *mm abreast bridge. Square bridge front with rounded corners.* CEYLON *after* 1955 *modernisation similar but with covered bridge and smaller high angle directors.* QUEBEC (*RCN ex-'Uganda'*) *with tripod mast but no topmast, otherwise similar. Drawing also represents Indian Navy* MYSORE (*ex*-NIGERIA) *after* 1956 *refit.*

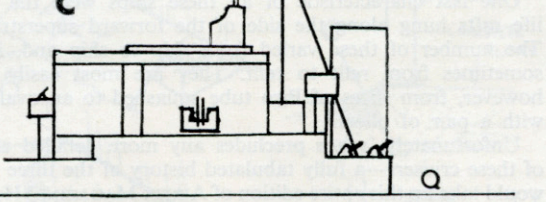


Fig 2C: 'Minotaur' class. SWIFTSURE *with quadruple 2pdr (later, twin 40 mm) abreast bridge.* SUPERB *and* ONTARIO (*RCN ex-*MINOTAUR) *similar but forward barrage director comes almost to top of bridge front. Notice cut-away 'step' abreast funnels Q—position port and starboard of additional 40 mm or 2pdr. carried in some ships, eg* QUEBEC, NIGERIA.

funnel cowls which *Tiger* sports—the earlier three classes didn't have them—and the provision of barrage directors from plastic sprues. Crane and boats are fitted as in *Tiger*—with the exception of the seaboats which I have already mentioned. As built, however, the 'Mauritius' class ships had *two* cranes set one abreast each side of the after funnel and normally trained forward. Since these vessels then carried a catapult between the funnels, the boats were stowed in the after superstructure. However, the aircraft and catapults were removed early in World War 2 and the class finished up with one crane and the boats carried between the funnels in the same way as the later ships. Nonetheless, this earlier arrangement makes an interesting variation to bear in mind for a model.

After superstructure is much more varied, but generally speaking Airfix part 8 suffices for the 'Minotaurs' and 'Ugandas' and part 6 for the 'Mauritius' class. *Newfoundland* and *Mysore* as modernised, however, had a very 'cleaned up' superstructure aft, best represented by 50 mm × 10 mm strips of $\frac{1}{8}$-inch stripwood, shaped aft to follow the line of the after shelter deck.

ARMAMENT

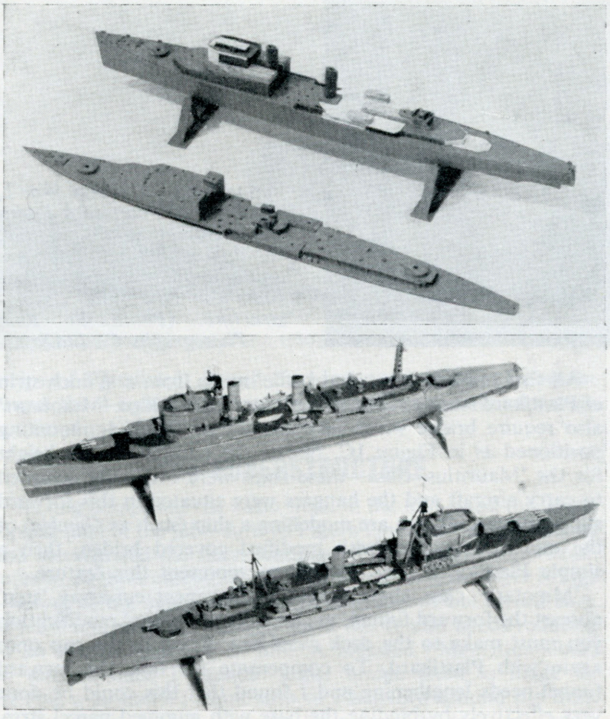
Reference to Figure 3 gives most of the details for the guns and directors. I'm afraid that there is no quick way out for the triple 6-inch turrets, the modern automatic type supplied in the *Tiger* kit being the wrong shape even for adaptation. Note that the centre barrel appears shorter than the outer pair, since it is set further back in the turret. Bristles are suitable for gun barrels, using the 6-inch barrels from the kit as a guide to correct diameter. As built, the 'Mauritius' class had four triple turrets in A, B, X, and Y positions but X turret was subsequently removed to make way for 2pdr AA guns. *Nigeria*, however retained the fourth turret until as recently as 1956. The 'Minotaurs' and 'Ugandas' were built with only three 6-inch turrets, the 'Ugandas' having 2pdrs in X position, and the 'Minotaurs' a fifth twin 4-inch mounting.

Small AA guns, whether quadruple 2pdrs, twin 40 mm, or single 40 mm are easily made from plastic scrap. The *Cossack* kit has a quadruple 2pdr which serves as a pattern for home built versions, while I find that 40 mm Bofors guns, both twin and single, can be fashioned from the life raft mouldings, using Nylon toothbrush bristles for gun barrels.

Finally we come to the triple torpedo mountings which are located beneath the four inch gun deck. I use the tubes from the *Campbeltown* kit for this purpose, *Campbeltown* being cheap enough to expend solely as a source of small parts. The modernised ships, such as *Newfoundland*, had the tubes removed. 'Mauritius' class cruisers had the gun deck supported by stanchions fore and aft of the tubes, and these can be made from the yardarms in the *Tiger* kit. In the two later classes, however, the sides were plated in adjacent to the tube space, so scraps of Plastikard must be utilised again here.

One last characteristic of all these ships were the Carley life rafts hung along the side of the forward superstructure. The number of these varied from ship to ship and, indeed, sometimes from refit to refit. They are most easily made, however, from slices of Biro tube squashed to an oval shape with a pair of pliers.

Unfortunately, space precludes any more detailed account of these cruisers—a fully tabulated history of the three classes would take up this entire edition of AIRFIX MAGAZINE! However I have attempted to give enough information to enable you to try your hand at two or three conversions representative of the main differences between the various ships. For more information I commend the invaluable 'Jane's Fighting Ships', any edition of which since about 1942 will give pictures and scale drawings of the ships in question. These earlier editions of 'Jane', incidentally, are usually to be found in the bigger reference libraries.


Uncompleted model of HMS KENYA (top) *showing the Plastikard and stripwood additions required in these conversions. The original Tiger deck moulding is shown alongside for comparison. Bottom picture shows models of* HMS NEWFOUNDLAND *after her* 1953 *modernisation* (top) *and* HMS SWIFTSURE (bottom). *Notice the lattice masts and low after superstructure in* NEWFOUNDLAND, *and the Carley rafts and torpedo tubes in* SWIFTSURE.

No two ships in either the 'Mauritius', 'Uganda', or 'Minotaur' classes were exactly alike—they all varied to some extent in disposition of AA armament, and were often altered structurally during refits. So the scope for modellers is enormous, giving the enthusiast more than 14 conversion possibilities from just the one *Tiger* kit.

LAYOUT REALISM— Continued

in each frame member of the shed (as shown inset G). This allows air to circulate fully between outer and inner walls.

Figure 2 shows A, rain guard for bottom of door. B, copper earth. C, 1 × 1 wood draught excluder, preferably with a facing of plastic foam, (seen from inside of shed). D, essential air vents —bore four 1-inch holes at least. If they prove draughty make a guard to shoot the draught upwards.

Now on to Figure 3. Don't cut roofing felt, tuck it over (as at A and B). Allow felt to overlap, as shown at C, to act as rain drip. Note also in the sketch how felt layers overlap, and that there is an extra strip of felt at the ridge of the roof.

Figure 4—primitive damp courses. The shed is laid on bricks with waterproof felt at the top of each brick. This should slope, as at A, or the alternative is a sloped cement layer as at B. The cement is mixed, three of sand to one of cement. C shows the slope where the shed is on concrete. This can easily be added to a shed which hasn't this provision. D shows bricks under the floor to support a heavy bench. These are laid on rubble, well hammered into the earth.

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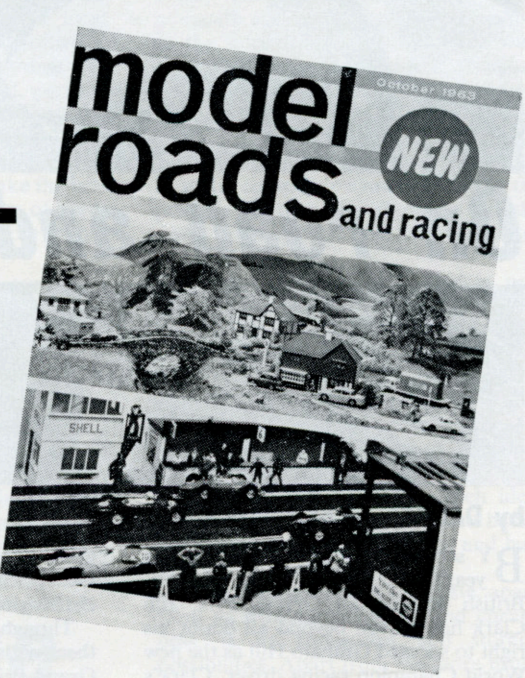

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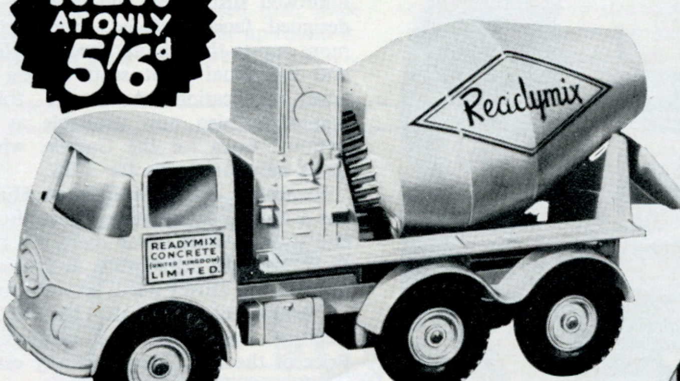

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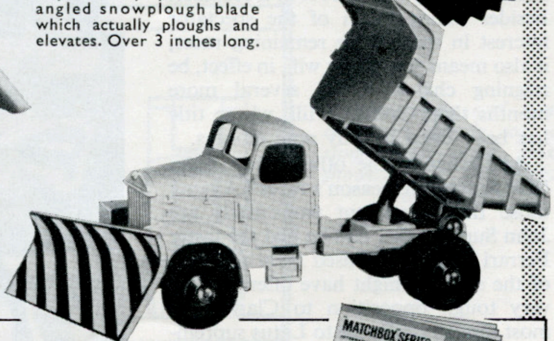

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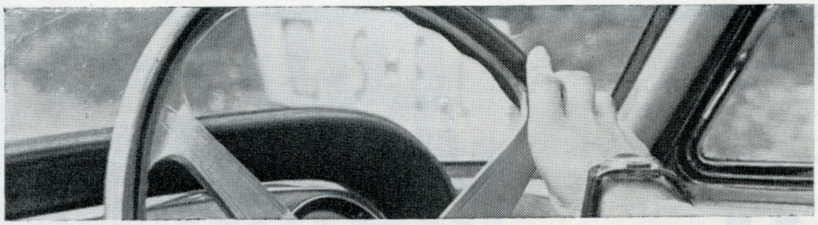

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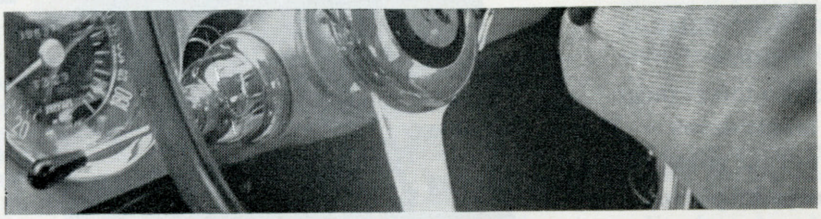


by DARRYL REACH

BY scoring brilliant victories in this year's Belgian, Dutch, French, British and Italian Grands Prix, Jim Clark has proved beyond all doubt his right to succeed Graham Hill as the new World Champion racing driver. Clark's superb driving ability has been more than matched by the speed and reliability of this year's Coventry-Climax V8-powered Lotus 25, and together they have been virtually uncatchable in this season's championship races.

Jim Clark made sure of his crown by another well-judged win in the Italian Grand Prix at Monza on September 8. Whatever the result of the three remaining Grands Prix of the United States, Mexico and South Africa, he cannot now be beaten. This is a marked contrast to the struggle between Clark and Graham Hill in last year's races, when the result was in doubt right up until the South African Grand Prix in December. Besides killing much of the spectator interest in these three remaining races, it also means that Clark will, in effect, be reigning champion for several more months than Graham Hill, whose title has been lifted in only nine months.

And what of the other drivers who have fought this season's races? Among those that stand out particularly are John Surtees who, had he had the faster Ferrari he was promised from the start of the season, might have offered some very tough opposition to Clark. The most serious challenge to Lotus supremacy has undoubtedly come from the Brabham-Climax cars, driven by ex-World Champion Jack Brabham and Californian Dan Gurney. Time and again these two gallant and talented drivers have suffered heart-breaking mechanical failures when seriously challenging for victory.

Though the season started well for them with a 1, 2 victory in the Monaco Grand Prix, the BRMs of Graham Hill and Richie Ginther have had to take more than second best to Clark's flying Lotus. It was a pity that the team's new monocoque car could not have been race-proved earlier in the season, when fortunes might have been different. And one must not forget the Coopers of Bruce McLaren and Tony Maggs which, too, have been the victims of an unusually bad run of mechanical mishaps.

But the prize for some of the most spirited driving of the year undoubtedly goes to Innes Ireland, whose driving of the BRP cars has been always good fun to watch, while the Italian Lorenzo Bandini must rate as the season's most improved driver.

Jim Clark, with five Grands Prix wins this season, is the new World Champion racing driver.

Rootes improvements

MOTOR SHOW time is almost here again, and with it the usual crop of new and improved cars. The Rootes Group have announced improved versions of three of their popular vehicles, the Hillman Minx de luxe, Singer Gazelle and Hillman Husky. On the 1,600 cc Minx de luxe, external redesigning has taken the form of reshaped roof, doors, windscreen surround and rear wings, with a lower bonnet line and re-styled front-end.

Other improvements include front disc brakes, lighter steering, improved suspension, optional Borg Warner automatic transmission, wider rear doors, individual front seats, a greater fuel tank capacity and redesigned facia panel. Equally important, all greasing points have been eliminated and service intervals lengthened to 3,000 miles.

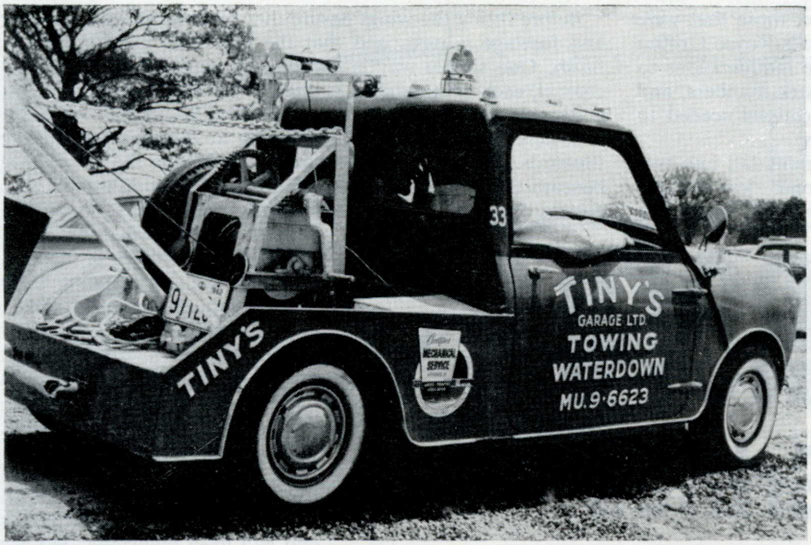
Also added to the car's standard equipment are a lockable glove box, twin-padded sun visors, a headlamp flasher and a floor-mounted ash-tray in the rear compartment. Price of the new Hillman Minx de luxe is £635.

In its latest form, the more luxurious Singer Gazelle has been given similar treatment, with front disc brakes, improved suspension and steering, redesigned facia, reduced maintenance, more up-to-the-minute body styling, and individual front seats among its new specification. Automatic transmission is also now available as an optional extra for the Gazelle, which in its new form sells for £723.

Externally, the new Hillman Husky has a lower bonnet line and new front-end styling, while inside there is a new facia. Like the latest Minx de luxe and Gazelle, the Husky needs servicing only at 3,000 mile intervals, has lighter steering and improved suspension. Price of the more refined Husky estate car is now £586.

New factory, new car

WITH well over 110,000 Morris and MG 1100s on the roads, BMC have released an Austin version of this popular Hydrolastic-suspended, trans-



Variations on the BMC Mini theme are legion these days. A Canadian converted this Austin Mini saloon into an ingenious light breakdown truck. Could be possible with the Airfix Mini, too!

verse-engined front-wheel-drive car. It uses the same basic body shell and is distinguished externally from its stablemates by different front grille treatment. Inside, there is a horizontal-line facia, incorporating a horizontal-strip speedometer and padded safety rolls top and bottom.

The Austin 1100 (priced at £593) is being built in a vast new factory at Longbridge—claimed to be the most modern in the world. With this increased production capacity, it is anticipated that total production of 1100s will reach 6,000 a week by November. The factory features a high degree of mechanisation and a new system of 'sequencing', or arranging for the appropriate materials and components to be in the right place at the right time. One of the biggest single contributions to BMC's expansion plans, the new assembly plant will play a big part in increasing production to a shortly-anticipated one million vehicles a year.

Latest from Luton

VAUXHALLS have announced a host of detail improvements for the Victor and the VX 4/90, which both now have a bigger, 1,594 cc engine. The Victor transmits its extra power through a new and larger clutch, while the front brakes are also enlarged. Power-assisted disc brakes, like those on the VX 4/90, are now optional. Inside the car, control knobs and switches have been re-grouped and there is improved trim. Externally, there is a new corrosion-free front grille.

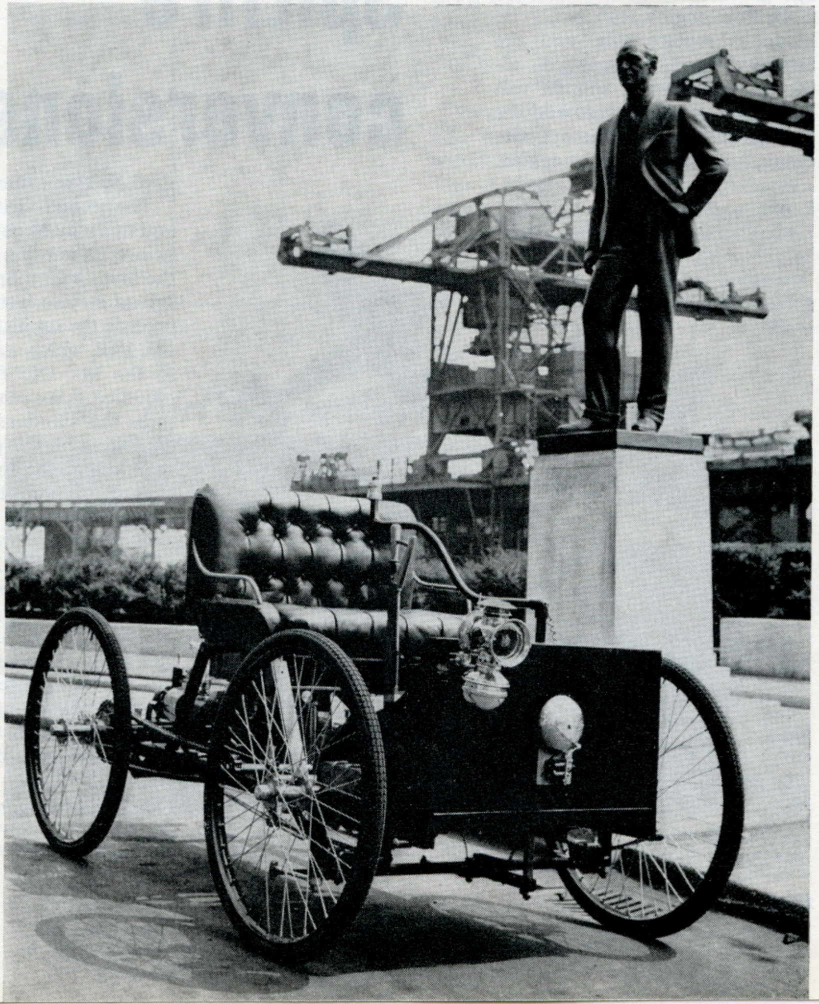
The two-carburettor VX 4/90 now has a grained walnut-veneer facia, with re-grouped controls, and a few minor body alterations.

New trim styles are announced for the Velox and Cresta models, which both have a lower axle ratio to give smoother top gear performance. New colours are now available for all Vauxhall models.

Ford centenary

TO mark the centenary of Henry Ford, who was born on July 30, 1863, and founded the giant Ford organisation, 20 students from Ford of Britain's apprentice training department built a replica of his first car, the Quadricycle. An exact copy of the original, the Dagenham-built Quadricycle has a 4 horsepower two-cylinder engine, 45-inch wheelbase, and pneumatic-tyred bicycle wheels.

Henry Ford sold his Quadricycle in 1896 for £40 (a tidy sum in those days). Today, in its glass case in a Dearborn museum, it would be valued at many times over the £1,500 it cost Dagenham to build their exact replica, which is now on a tour in Scandinavia.



The fine replica of Ford's Quadricycle, pictured alongside a statue of Henry Ford, with part of the great Dagenham works in the background.

PROFILE

Griffon engined Spitfire conversions

THERE were basically two types of Spitfire, those that were Merlin powered and others fitted with Rolls-Royce Griffon engines. Profile last month considered simple modifications to Airfix Spitfire IXs needed to change their mark numbers, and this month our attention is given to modifications needed to produce some of the Griffon-engined versions.

Broadly speaking, the Griffon-engined variants fall into two groups, one with and the other without a rear view canopy. The latter aircraft of Mks XVIII, 22 and 24, and also some Mk XIVs, present extra difficulty, although by cutting down the depth of the rear fuselage and filling it, and also placing a teardrop canopy from another model in place, one of these versions does not require great skill. Profile, however, considers here aircraft with the old type of cockpit cover.

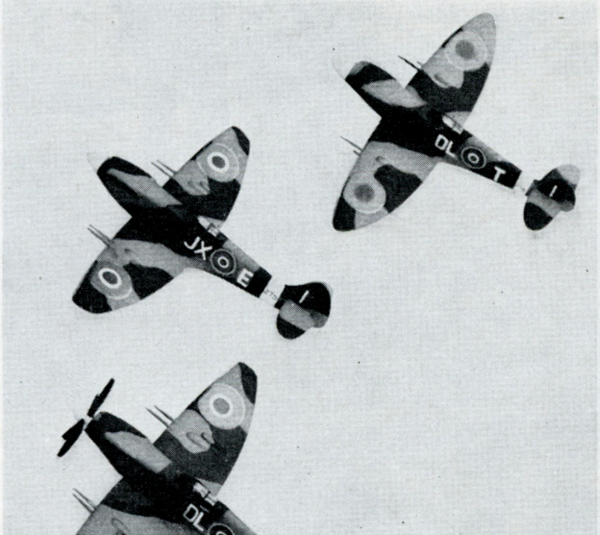
The first Griffon variant to see service was the Mk XII, which existed in two versions. A model of the XII can readily be based on the Mk IX, with wing tips clipped to represent the 32 feet 7 inch span and a Universal Wing. To produce a Mk XII, complete a Spitfire fuselage and cut away the fin above the fuselage, then the engine ahead of the wing roots. A wooden cowling, shaped as for a Griffon engine, can easily be made to replace this, and the airscrew fitted as supplied, although an enlarged spinner will be needed. It is easiest to add the fairings placed over the cylinder casings after attaching the engine.

Before fitting the wings ensure that the join between cowling and fuselage is neat, and that the new nose has a very fine finish. One simple way is to give this several coats of plastic enamel, each time sanding it once it has firmly dried. Exhaust stacks can be cut from the cowling which was cut away, and it is easiest to remove them by starting at the rear and cutting forwards. They may then be effectively added to the nose. Place beneath the nose a new intake fairing, as depicted on the nose outline drawing. A new slender intake will need to be placed beneath the port wing, instead of one of the large types as supplied with the kit. Fit a pointed fin and rudder, as illustrated in last month's Profile.

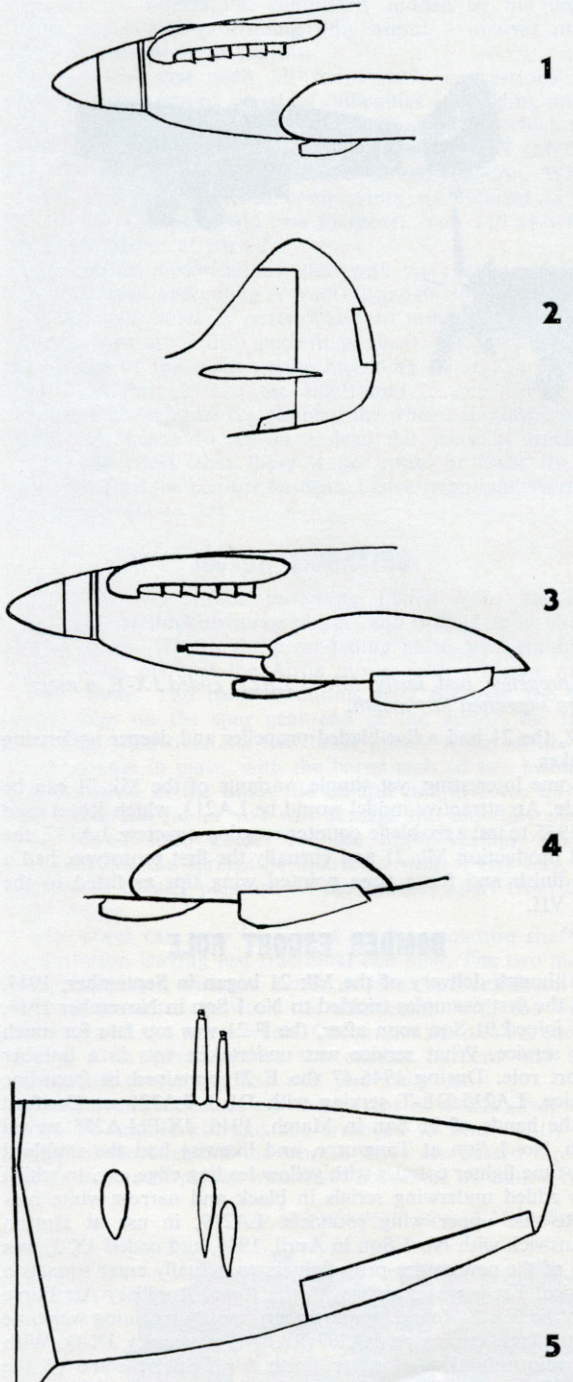
One-hundred Spitfire XIIs were built, some as F XII and some as LF XII, their designation depending upon the engine ratings. There were two distinct types of Mk XII, the early machines EN221-238 and EN601-637, which were based on Mk IX airframes and had fixed tailwheels, and the remainder MB794-805, MB829-963 and MB875-882, which had retractable tailwheels. Standard 1943 style markings were applied to the XIIs, which were used by two squadrons at this period, No. 41 (coded EB) and No 91 (DL). Examples of the XII were EN620:EB-F and MB840: EB-J. Both were F Mk XII. MB882:EB-B was an LF XII, outwardly similar to the F XII. All these were in use during the period 1943-44 and wore standard Spitfire camouflage and trimmings.

The second Griffon variant to see service was the Mk XIV, and this may be considered as a useful progression for modelling before attempting to produce one of the later Spitfires. It was the first Griffon Spitfire to see large-scale production and widespread service, yet it was in reality an interim version built to precede the sophisticated Mk XVIII. The XIV was based on the Mk VIII which was similar, from a modeller's point of view, to the Mk IX. The prototypes of the XIV were Mk VIIIs modified. Like many of the later Spitfire prototypes, several of these had standard fighter camouflage, to which was added the 'P' yellow prototype marking, but no rule can be laid down to cover them for there were the inevitable exceptions. Various shaped fins were tested on the XIV prototypes to counter the effects of the long nose required by the Griffon, and eventually a third shape of production fin was designed, as depicted.

To build a Mk XIV from the Airfix IX, cut away the engine cowling forward of the wing leading edge roots, and replace it with a wooden engine of the required shape. This will need to incorporate the spinner when it is made, for that supplied is no longer of much use. Neither is the airscrew, for the Mk XIV was the first to feature the five-bladed type. Such a propeller gives an interesting touch to the model, and blades from other propellers—from the odds and ends box or other Spitfires—could easily be added to the new spinner. A new shape of intake



Three Griffon-engined Spitfire conversions, showing the camouflage patterns carried by the aircraft in reality. The two Mk 21s had a glossy finish—but not high gloss—whereas the Mk 14 had a matt finish.



Drawings show: 1—*Nose profile for Mk XII.* 2—*Tail outline for Mk XIV, XIX and* 21. 3—*Nose profile for Mks XIV, XIX and* 21. *XIX had additional intake beneath the exhaust manifold, and no guns.* 4—*Under wing intakes for Mk* 21. 5—*Wing plan form for Mk* 21.

also needs to be placed beneath the nose, and the fin will need to be replaced by one shaped as in the drawing. For low attack purposes some of the XIVs had clipped wing tips, and there were also some known as Mk XIVe with the 'E Wing', details of which were given in last month's Profile.

Spitfire XIVs came into use in 1944, and this version proved particularly useful against the Flying Bombs, or V-1s, in 1944. One aircraft used in this role was RB174:DL-T, which served with 91 Sqn in July 1944 at West Malling. RB158:DW-D served at this time at Friston with 610 Sqn. Neither bore AEAF stripes, but RM619—in use at the end of 1944 as AP-D of No 130 Sqn 83 Group 2nd TAF—had them under its fuselage. This, too, had the Universal Wing. All the fighter recce FR XIVs had rear view canopies, and some of the later XIV fighters too, so before completing a model to any known marking it is essential to check the precise version in mind. One of the clipped wing F XIVs was JW-M:RB165, in use with the CFE at West Raynham in September, 1946. She had rocket projectile racks, a red front half to her spinner and black underwing serials.

Attention to detail must never be overlooked in model making. When making a Mk XIV don't spoil your model by fitting a rigid aerial mast, for the Mk XIV and subsequent versions had whip aerials, which can only be represented by the use of extremely thin wire. If a model with its undercarriage down is chosen, then do not overlook small doors to cover the tailwheel. Many of the Mk XIVs were never without their rectangular belly long-range tanks, again a detail worth adding for more effectiveness.

PHOTO-RECONNAISSANCE VERSION

Next in the range of Griffon Spitfires easily produced is the Mk XIX. This resembles the Mk XIV but, since it was a photo-reconnaissance version, it carried no guns. It had a window on the port side of the fuselage, aft of the canopy, for an oblique camera, and two ports beneath the fuselage. Most of the Mk XIXs had no side access door to the cockpit. An extra intake was placed beneath the exhaust manifold on the port side of the fuselage.

The Mk XIX came into use in the second half of 1944, after the period when AEAF stripes were applied to PR Spitfires, and they operated in an overall PR Blue finish with small white-cum-grey fuselage serials. PS832 was with No 542 Sqn in 1944 and PS908 in 1945. After the war white squadron code letters were painted on these aircraft, as on ES-D:PM658. In Germany PR XIXs were used by No 2 Sqn, part of BAFO, and in 1949 PM660, with white fuselage serials and the grey codes OI-X, was in use. She had yellow-blue-white-red fuselage roundels and red-white-blue upper wing roundels. As with the other PR Spitfires, no under wing roundels were applied. Fin stripe was red-white-blue. PM620:0I-V had at the same time black serials and red and blue roundels. In both cases the OI was aft of the roundels on both sides of the aircraft. In the Far East the PR XIX was used by No 81 Sqn, some aircraft having an all-silver finish, others, like PS836 in use in 1954, bearing a PR blue finish with post-war roundels and fin stripes and black under wing and fuselage serials.

PS888, a silver machine, made the last operational flight by any Spitfire, on April 1, 1954, when with 81 Sqn. Home based WY-R:PS934 in the hands of 541 Sqn in July, 1950, had a PR blue finish, white codes, black serials and red and blue roundels, so it can be seen there was some diversity even within such a small series of aircraft and over a similar period.

The final variant of the Spitfire that can be made reasonably simply from the Mk IX is the F Mk 21. So different from the

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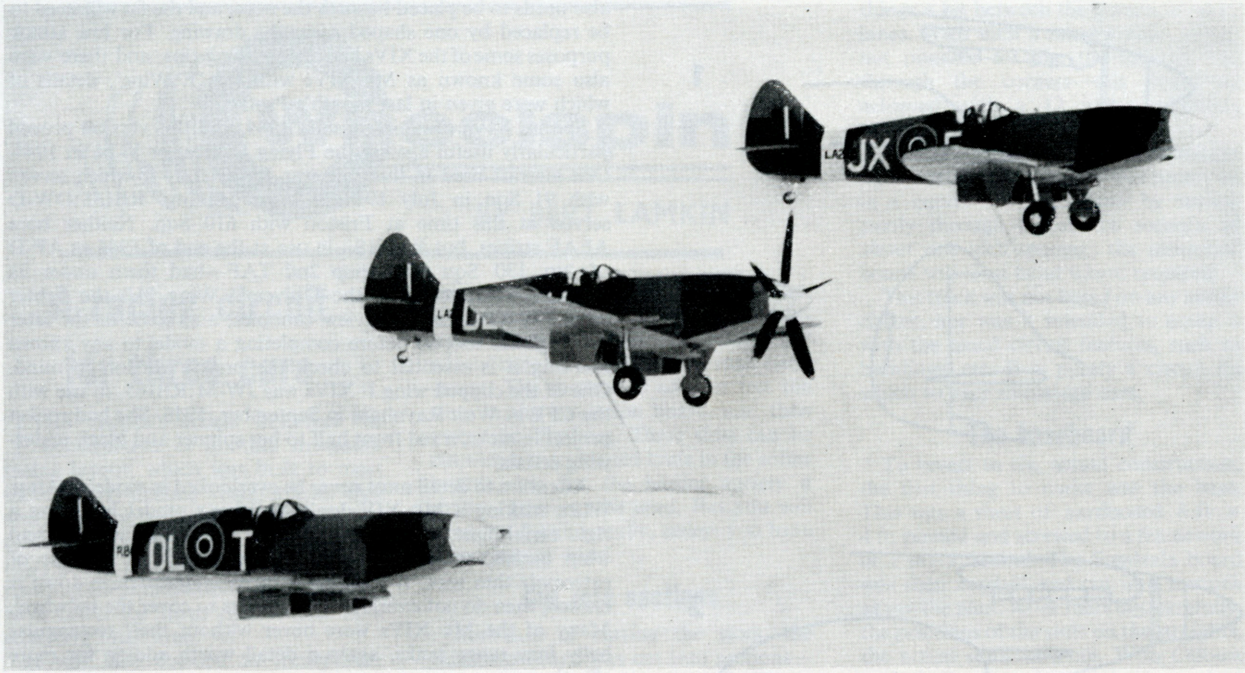


From left to right: *A Mk* 14 *RB*174; *Mk* 21 *LA*279 *with a five-bladed propeller; and, lastly, Mk* 21 *LA*275 *coded JX-E, a useful companion for the Mk* 9 *of* 1 *Sqn suggested last month.*

PROFILE—*Continued*

earlier Spitfires was this mark that it was ordered under the name Victor, but subsequently redesignated Mk 21. It had a new wing entirely, able to carry four cannon and no longer elliptical in shape. It had greater area and tips of a new shape, as well as modifications to its leading edge. The wing of the Mk 21 was of a new section; it was a laminar flow wing and so, strictly speaking, the wings supplied with the kit should really be dispensed with. But the change in the section would show only very slightly on a small scale model such as this, and so it seems acceptable to use them as a basis for the new wing.

The wing modifications call for new tips and some alteration where the wing joins the root. Cut off the wing tip along the second panel line in from the tip, and replace with a new wing tip as illustrated. This can easily be shaped from wood or plastic. When attaching the new wing to the root slip in a small plastic or wooden wedge between the wing and the root at the trailing edge, thereby forcing the wing slightly forward. Fill the crack existing as a result. The inner wing leading edge will then need to be slightly reshaped. Two cannon are needed for each wing, so the spares from any other Spitfire conversions can be used for this purpose. An additional small fairing will need to be added outwards of each cannon fairing on the upper surfaces, and most Mk 21s had another such bulge quite close to each wing root.

REPOSITIONED UNDERCARRIAGE

The undercarriage on the F21 was slightly repositioned, but again the change was so slight as not to need incorporation on the model. Doors to cover the wheels when retracted were fitted, and these can be cut from thin card. The wheel wells need to be modified to resemble the new form. A retractable tailwheel was fitted, and doors to close over it.

The revised fin and rudder was similar in shape to that of the Mk XIV. Likewise the Griffon engine cowling. Like the Mk XIV, the 21 had a five-bladed propeller and deeper underwing intakes.

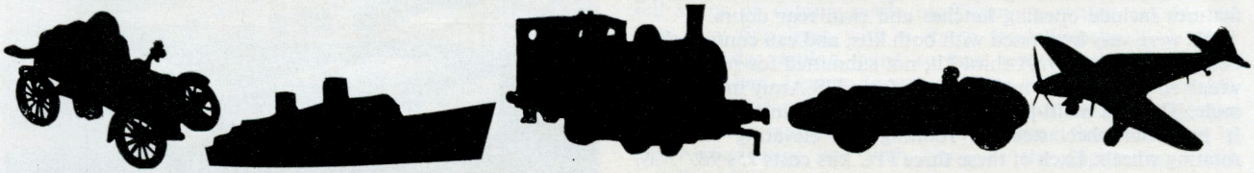
Some interesting, yet simple, variants of the Mk 21 can be made. An attractive model would be LA213, which Rotol used in 1945 to test a six-blade counter-rotating airscrew. LA187, the first production Mk 21 and virtually the first prototype, had a PR finish and for a time pointed wing tips as fitted to the Mk VII.

BOMBER ESCORT ROLE

Although delivery of the Mk 21 began in September, 1944, and the first examples trickled to No 1 Sqn in November 1944, and joined 91 Sqn soon after, the F 21 was too late for much war service. What service was undertaken was in a bomber escort role. During 1946-47 the F 21 remained in front-line service, LA215:DL-T serving with DL:L-LA221 at Duxford in the hands of 91 Sqn in March, 1946. JX-E:LA275 served with No 1 Sqn at Tangmere, and likewise had the standard war-time fighter colours with yellow leading edge, etc, to which was added underwing serials in black and narrow white red-white-blue upper wing roundels. LA219, in use at Hutton Cranswick with No 1 Sqn in April, 1946, and coded JX-3, was one of the new contra-prop fighters to actually enter squadron service. Yet it was mainly with the Royal Auxiliary Air Force that the Mk 21 found employment, mostly retaining war-time camouflage, etc, as on LA267:RAI-M, previously JX-Q. With the reintroduction of silver finish for fighters, some of the Mk 21's were stripped of camouflage, including LA267, which was recoded LO-M when 602 Sqn again assumed front-line status. Code letters were black and often the spinners of the fighters were decorated.

The suggested Spitfire variants are but a few that can be made from the Airfix Mk IX. They take no account of the range of Seafires, the rear view canopy aircraft and those which wore, and indeed still do wear, foreign air force markings. Some of these we shall consider at a later date. **M. J. F. Bowyer**

New kits and models



REALISTIC RENAULT

A SPLENDIDLY detailed 1:40 scale replica of a 1911 Renault two-seater is the latest model to appear in the Matchbox Models of Yesteryear series. Three inches long, it sells for 4s. The body is finished in green, with the two accurately modelled veteran bucket seats in red. The 'spoke' wheels, headlamps, windscreen, handbrake, gear lever and radiator (behind the engine) are all finished in imitation brass plate. There is also a steering wheel, instrument detail on the dashboard and a spare tyre.

Also added to the Matchbox range is a new OO scale ten-wheeled quarry truck, finished in double-baked yellow paint. The wheel detail is particularly pleasing and gives a true impression of the vehicle's toughness. The tipping body has the special feature that it will stay in any elevated position. Price of this 2¾ inch long model is 1s 9d. *D.R.*

EASIER-TO-USE ADHESIVES

COMPLETELY redesigned packs have been announced for Humbrol Products' Britfix '66' balsa cement and Britfix '77' polystyrene adhesives. The medium-size (½ oz) tubes now have a longer, more slender nozzle for accurate spot-gluing on intricate models. The large (1 oz) and monster (2 oz) tubes also have long-reach nozzles with a new type of easily-gripped screw pin which keeps the air out of the tube so that the adhesive is always ready to use.

All the tubes and their cartons now have a brighter, bolder design. Prices are unchanged—medium tube 7d; large tube 1s; monster tube 1s 6d (polystyrene cement) and 1s 8d (balsa cement). *D.R.*

1:24 SCALE FIGHTING VEHICLES

BMW Models, of Wimbledon, are importing an exciting range of ITC ½ inch scale kits of authentic armoured fighting vehicles, two of which they submitted to us for review. The prototypes of these two vehicles have been developed by the US Army in recent years. The T113E2 airborne personnel carrier was developed from a type first used in the late stages of the Korean war. It weighs 11 tons, has a crew of two and carries 11 fully-equipped infantrymen. Aluminium alloy armour gives protection from small arms, atomic radiation and heat flash, and a .50 calibre machine gun is mounted outside the centre cupola. A 215 hp V8 Chrysler engine can propel this amphibious vehicle at 40 mph on level ground or 4 mph in water.

The T92 airborne tank is a prototype tank destroyer and reconnaissance machine, which can be airlifted and dropped by parachute. It weighs 18 tons, some seven tons less than the M41 light tank from which it was developed. It carries a crew of three. Armament consists of a remotely-aimed 76.2 mm gun mounted in an opening in the top of the low flat turret. Smaller side turrets on both sides of the main armament house .30 and .50 calibre machine guns. A 310 hp Continental engine provides the motive power through four forward gears and one reverse.

The ½ inch scale of the ITC kits has been fully exploited, resulting in magnificently detailed models measuring about eleven inches long. Each vehicle has correct section flexible tracks, which engage on the front drive sprockets and run in grooves in the revolving road and idler wheels. Apart from the track and the square section metal drive sprocket shaft, all the parts are high quality dark green plastic mouldings. On our review models each part fitted extremely well and very little 'flash' needed removing. The personnel carrier is basically a simple box structure, with large flat panels forming the roof, sides and floor. Features which add interest to the construction, as well as to the appeal of the finished model, include opening rear door and ramp, swivelling gun mounting and machine gun, opening driver's hatch and working front wave deflector plate.

The T92 airborne tank kit is perhaps the most interesting. Our review sample suffered a warped road wheel panel, but such is the perfect fit of each part of both these kits that the warped panel was easily straightened when cemented in place. An excellent working feature of the tank is the revolving turret, which is a real precision fit in the deck of the tank. There are no tight spots

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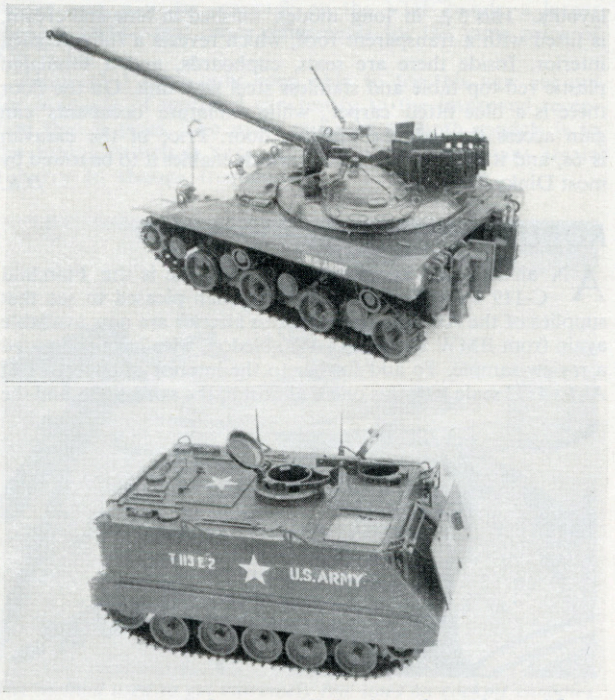


1:24 *scale T92 airborne tank* (top) *and T113E2 airborne personnel carrier by ITC, and available from BMW Models.*

New kits and models—*Continued*

or slack at any point in the full circle through which the turret revolves. The machine guns in the two side turrets and the main armament, the 76.2 mm gun, swivel up and down. Other working features include opening hatches and twin rear doors.

We were very impressed with both kits, and can confirm their detailed authenticity. A third kit, not submitted for review, but which sounds equally interesting, is for a US Army mechanised mule. This is a multi-purpose carrier with 16 mm recoiless rifle. It has four-wheel steering, rotating and elevating rifle and rotating wheels. Each of these three ITC kits costs 25s 9d. *N.S.*

ELECTRICALLY-OPERATED POINT

FOLLOWING quickly on the introduction of their new Simplec hand-operated point, reviewed in the August issue, Hornby-Dublo have now announced an electrically operated version. The electrical mechanism is commendably neat and unobtrusive, and only slightly larger than the hand-operating mechanism. In all other respects the points are identical. The mechanism operates on either AC or DC at 12-15 volts by a passing contact switch, such as the Hornby-Dublo Type 1613, which can operate up to two points at one time, or one point plus an electrically-operated semaphore signal.

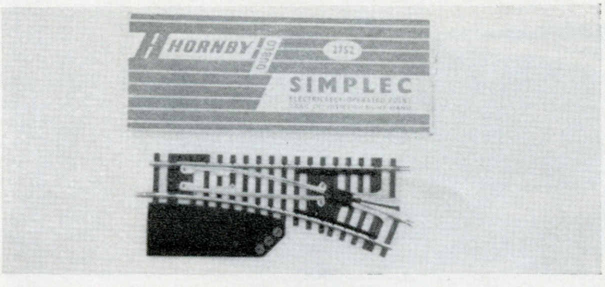
The Simplec electrically-operated point is available in both left-hand and right-hand versions, price 19s 3d each, including full operating instructions. The type 1613 switch is available separately, price 4s 11d. *N.S.*

CARAVAN WITH A 'CARPET'

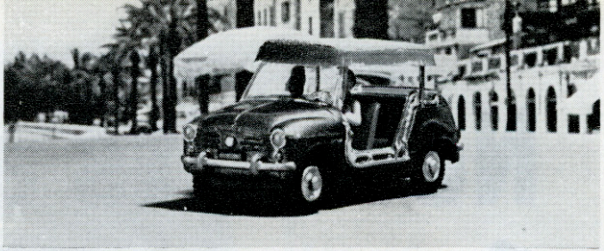
CARAVANNING is a popular pastime these days, and it is likely that many Dinky Toys collectors will welcome the chance of adding the new Dinky four-berth caravan to their layouts. This 5$\frac{3}{16}$ in long model, finished in blue and cream, is fitted with a transparent roof, which reveals a fully-detailed interior. Inside there are seats, cupboards, and a simulated plastic red-top table and stainless steel sink unit. On the floor there is a blue fitted 'carpet', while miniature 'occupants' can gain access through the opening door. Price of the caravan is 6s, and it is fitted with a hook which enables it to be towed by most Dinky Toys cars. *D.R.*

ROBUST PACKET

AN aircraft that has always interested me is the Fairchild C-119 Packet, and I was more than pleased to see that supplies of the Aurora version of this aircraft are now available again from BMW Models, of Wimbledon, who have submitted a review sample. To add further to the interest of collectors of Airfix 1:72 scale kits, this one is almost to the same scale, and the slight difference in size will not notice. The actual scale is $\frac{5}{32}$ in to the foot, and the wingspan measures 17 inches.



Hornby-Dublo's electrically-operated version of their new Simplec point.



New from Corgi are the Ghia-Fiat 600 'Jolly' (top) and Commer pick-up truck with Trans-O-Lite headlights.

One can always bring certain criticisms to a kit if one tries hard enough, and all the points I noted are, in my mind, forgivable in view of the usefulness of the Packet in a representative collection. There are, for example, no clear plastic portholes in the sides of the fuselage and the modeller is either left to fill them in himself or not bother. There are no wheel wells, the undercarriage fits directly into the tail booms and the model has rather deeply engraved lines to indicate where colour areas should come.

Apart from this I found that the fuselage itself was rather difficult to fit, but by securing the two halves with Sellotape after putting them together I found that the warping which kept the pieces obstinately apart was overcome.

A useful selection of transfers were available with the kit, but I preferred to finish our review sample in US Marines markings. There are, however, many other variations that the enthusiast can use, as the Packet has served in many of the world's air forces.

The 80 parts in the kit are moulded in a grey plastic and, generally speaking, are fairly easy to fit together. They produce a robust model, which seems to be a feature of most of the Aurora kits. The only gimmicks are the rear loading doors that can be made to open and the Jeep and gun that fit inside the fuselage. The cost of the kit is 27s 11d from BMW Models. *A.W.H.*

SUNSHINE RUN-ABOUT

SUNNY beaches and holidays in far-away places are brought to mind by Corgi Toys' new model of the Ghia-Fiat 600 'Jolly'—a familiar little run-about on the beaches and promenades of European and American holiday resorts. The real 'Jolly' is a special conversion by the coachbuilders Ghia of the well-known Fiat 600, and the Corgi model has the detachable fringed sun canopy, plated handrails and trim of the prototype. Other features of this pleasing little model are removable passengers, seats, steering wheel and Glidamatic spring suspension. The model is 3$\frac{1}{8}$ inches long and sells for 5s.

Also new from Corgi is a Commer pick-up truck. Like the

Corgi VW delivery van (reviewed in our April issue), it has the novel Trans-O-Lite headlights system, which works on the principle of reflected light and obviates the need for a battery. The model is fitted with a half-canopy, with a seat behind the cab for personnel transport. It also has seats in the cab, a steering wheel, and Glidamatic spring suspension. Length is 3½ inches and price 5s 6d. *D.R.*

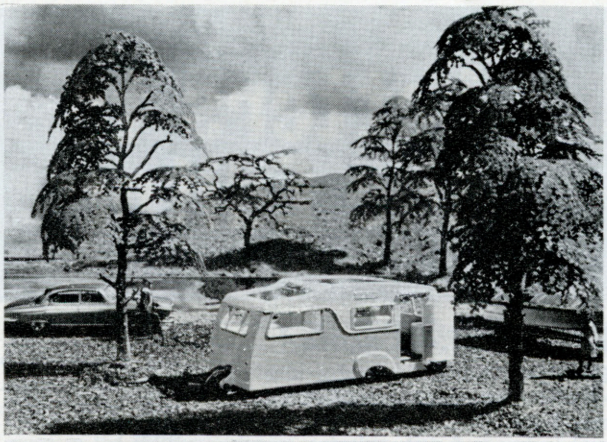
A NEW APPROACH TO SCENERY

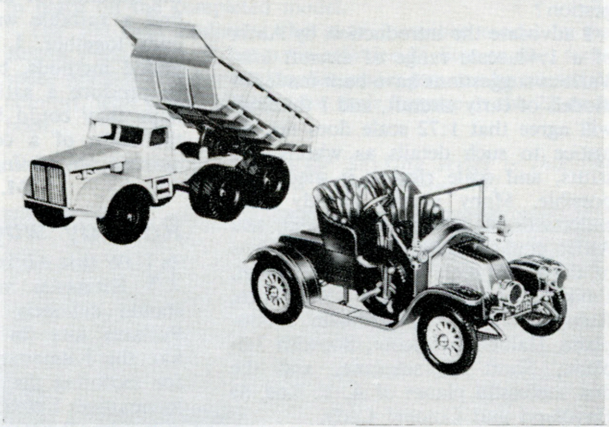
ANOTHER new train set has been added by Lone Star Products to their growing range of Treble-O-Lectric railways. Known as the de luxe scenic train set, it sells for 8 guineas complete. It includes four attractively coloured vacuum-formed scenic sections, which are an interesting new development in model railways. They are manufactured from a tough, serviceable form of plastic and incorporate hills, high-level track, bridges, tunnels and roads, which provide a very realistic background effect to the layout. Each section is 18 inches square, so the overall size of the layout when made up is only 36 inches square.

Also included in the set are five OOO scale buildings, moulded in vinyl, each with a base measuring approximately 5½ in by 3 in, and incorporating such features as pavements, gardens, courtyard and car park. These true-to-scale models are beautifully painted, with all detail clear and distinct. Other items include five OOO scale die-cast vehicles and 12 OOO scale station staff and passengers (which are supplied unpainted so that they may be finished to individual requirements) together with six trees, 14 telegraph poles, four signals, a signal box and a station.

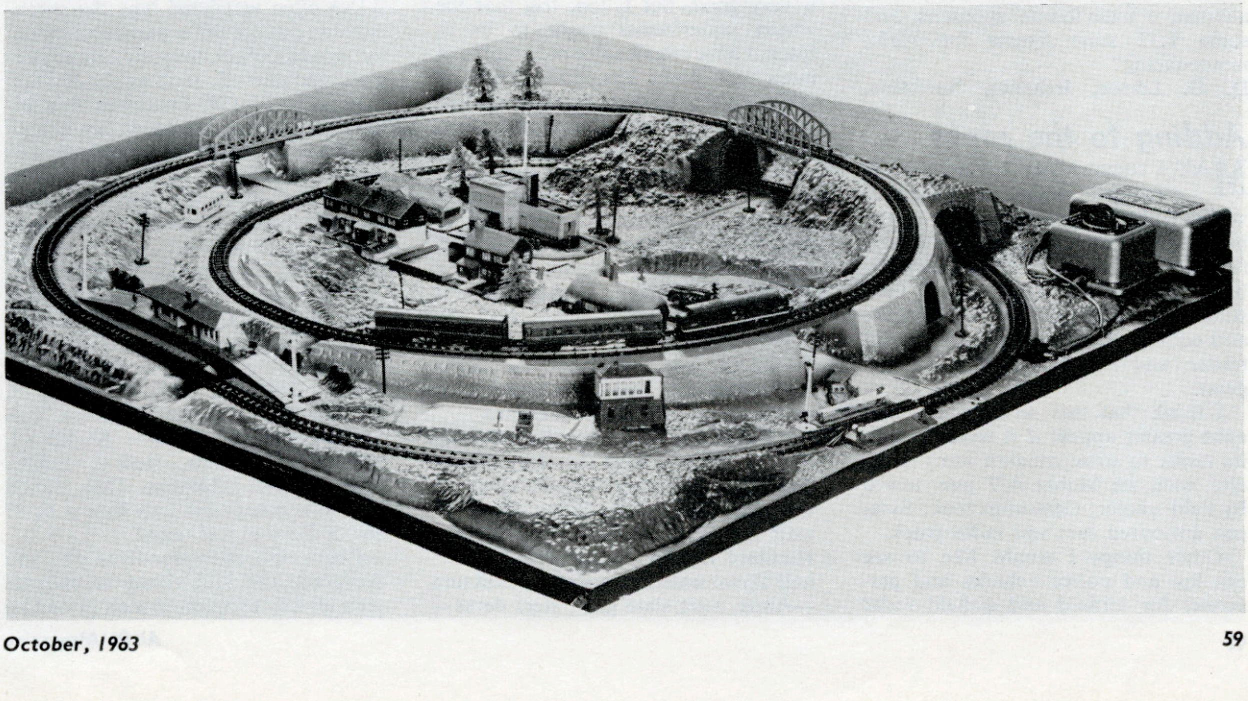
A British Railways diesel-electric locomotive (D5900) and two maroon main-line passenger coaches are also included in the set, with sufficient track to form the two-level figure-of-eight circuit. The layout can be easily extended with sidings by replacing the level crossing with a point. It is also possible, by fitting two left-hand points, to extend the layout with another circuit of track or employ even more elaborate ideas. There is also provision to add extra buildings from the new Gulliver County Series of 2 mm scale models.

The scenic sections in the new set are also available separately at 39s 11d for the set of four. *D.R.*





Top: *Dinky Toys four-berth caravan.* Above: *Matchbox OO scale quarry truck and 1:40 scale* 1911 *Renault.* Below: *De luxe scenic train set by Lone Star Products.*



Letters to the Editor

Letters to the Editor can only be answered in the magazine. Readers whose letters are published each receive a free Airfix plastic construction kit of their choice. We are always pleased to receive your comments and pictures, which will be considered for publication. Submitted material and pictures can only be returned if accompanied by a stamped addressed envelope, and the Editor cannot accept responsibility for safe keeping of any such contributions, neither does he necessarily agree with comments expressed by correspondents in the letters column.

Why not 1:48 scale?

SEEING that you are now able to offer more space for readers' letters, may I take this opportunity of filling your columns for the coming month with irate replies to the following suggestion?

I advocate the introduction by Airfix of a 1:48 scale range of aircraft kits. Various suggestions have been made for models of early aircraft, and I think all will agree that 1:72 scale does not do justice to such details as wheels and struts, and scale rigging is made impossible. Many people already have collections of 1:48 scale biplanes, and Airfix could augment these with kits of the really early types, ie, a Bleriot, Fokker Eindekker, MF Shorthorn, Rumpler Taube, Deperdussin monoplane, Halberstadt Scout, Sopwith Triplane, Short 22S seaplane, and the first successful planes of A. V. Roe, de Havilland and Colonel Cody.

Lastly, how about some vintage racing cars—ERA, Bugatti, Auto-Union—a World War 1 tank, with alternative male/female sponsons, and some 1:32 scale figures for Airfix motor-racing?

D. G. Leeson, Irchester, Northants.

Adding to the ranks

MAY I congratulate Airfix on their excellent series of fighting vehicles. In my opinion this is the best series yet produced. Perhaps future additions to it might include: breakdown truck; army lorry, with suitable occupants; field ambulance; and command group (jeep with radio, trailer, and two motor-cycle messengers).

I think that this series would find even greater appeal if it were to open its ranks to some modern army vehicles, such as: Mobat A/T gun, towed by field tractor; Centurion tank; Saracen armoured car; and radio truck.

Other things I would like to see are fire and police vehicles and personnel for airfield and airfield radar equipment. Also some maintenance and command personnel for those neglected aircraft. Perhaps we could hear other readers' views on these ideas?

Perhaps they could also help me on the question of tank tracks. I cannot find a suitable way of joining track ends together. I have tried all suggested methods, but cannot find one to produce a satisfactory joint. Perhaps they could be manufactured in the form of a continuous track requiring no joining?

M. Ward, London, N7.

Railway wagon mods

NOW that Airfix have taken over the Kitmaster moulds, I think you should definitely make the Midland Pullman kits (in two colours) with, like the Kitmaster versions, provision for motoring the motor coaches. The locomotives I plead for are the *Evening Star*, the 76000 class *Mogul* and the USA tank (0-6-0).

I think the Airfix range of rolling stock is very good, but I, too, feel that the wagon underframes ought to be in black. I have rebuilt some old wagons of mine with Airfix kits. This I did by taking off the old body from the chassis, omitting the kit underframe altogether, slightly modifying the floor of the new body, assembling it, and sticking it to the old metal underframe. After applying the transfers, the effect is marvellous, as the new wagon was weighted by the old chassis.

T. Hall, Dorking, Surrey.

Painting warships

I HAVE just completed the Airfix *Warspite* kit, and have found it up to the usual high Airfix standard.

I should like to submit the following colours which, I have found by experiment, give the most realistic effect to warships:— wooden decks—Humbrol matt khaki; hull below waterline—Humbrol railway enamel red bauxite; hull above waterline and superstructure—Airfix matt slate grey; steel decks—Humbrol matt grey-green; boot topping and all gun barrel tips, etc.—Airfix matt black.

May I join in the game of suggestions and plead for a model of the finest battleship ever to fly the White Ensign—HMS *Vanguard*?

Howard J. Taylor, London, N8.

Canadian comments

I AM an enthusiastic and serious collector of model aircraft, and read with interest the comments and suggestions from other readers of your excellent magazine. I have been tempted to write many times in the past to congratulate you on the continued excellence of your models, which I think are still the best value for money in the world.

I suppose if I wait long enough, you'll come through with each and every type of aircraft that anyone could want, but no doubt, like other enthusiasts, I am impatient to see certain models on the market—and now that other makes are in the 1:72 scale race, I think you might be 'beaten to it' in certain types.

I've often wondered how the manufacturer decides on a particular model for production. Obviously, some aircraft are 'classics', such as the Spitfire, Hurricane, Bf 109, Lancaster, Sunderland, etc. Others, no doubt, are chosen for their versatility and virtuosity, as well as worthiness of a place in the history of aviation's hall of fame. Usually these qualities go with large production numbers, eg the Anson, Swordfish, Thunderbolt, Mustang, etc.

To sum up, I'm sure I'm not alone in asking for:- SE5, Fokker D7, Boston 3 (with Havoc nose, please!), Hudson VI, Stirling, Battle, Hampden, Ju 52, Ju 88, Macchi 202 and SM 79 Sparviero, Mitsubishi G4M Betty, Hayabusa, Yak 9, Stormovik, Kawanishi Shiden-KI, Avenger, Barracuda, Hellcat, Firefly, Mitchell and Liberator. That should keep you going—but let's have a Ju 88 and a Boston real soon!

I have also often wondered why you don't add the little things to enhance your already excellent models by adding a transfer of invasion stripes, and the white/duck-egg blue fuselage 'rings' with numbers superimposed.

Finally, I have a tip that might be of interest to some of your readers. Your local chemist may be able to supply you with some empty drug capsules, of various sizes, (under the National Health!). I have used these quite effectively for various things such as astrodomes—painted black as radar noses for a Beaufighter TF X; left alone and cut at an angle for the Mosquito B VI; painted yellow and attached to an ASR Lysander's wheel stubs, etc. Another tip, possibly an old one, is to use bristles from scrubbing brushes to make guns and aerials, etc, on such models as Me 110, Wellington GR XI, and Frog Blenheim IF version.

F/L R. W. D. Low, Ontario, Canada.

Easy-to-make missiles

WITH more and more modern aircraft being fitted with air-to-air missiles, readers may like to be reminded that model missiles can be made from the plastic stems on which the kit parts are attached. These stems can be easily shaped into Firestreak or Sidewinder missiles and when painted look authentic. Rockets and refuelling probes can also be shaped from these stems.

In the September issue of AIRFIX MAGAZINE, I was very interested in David Hall-Green's letter. I recently tried his method of putting on transfers, and I find it very successful.

Here is another tip to aircraft modellers—if you are converting a model and it needs cannons, I suggest you use cocktail sticks. By cutting off the sharp end about half-an-inch from the point you have a realistic cannon, and the good thing about using cocktail sticks is that they can be stuck on with polystyrene cement.

P. Fairbrother, Brampton, Hunts.

Anson trainers

WHILE I am a comparative newcomer to AIRFIX MAGAZINE, having only 'discovered' it in January, 1962, I get a great deal of pleasure in browsing through back numbers.

I have just been reading through the 'Profile' in your October, 1962, issue, which dealt with Anson trainers. This sent me to my logbook and photo album. I was at No 7 SFTS, Macleod, Southern Alberta, and we flew Anson IIs. While most of these had RCAF serials—without prefix letters—I see that a few Mark IIs were in the FP series, eg, FP960, FP965, FP974. On the other hand, the Mark IIIs which we had in the Navigation Flight, while having UK airframes, had Canadian serials. I wonder if anyone can explain this double anomaly?

The Mark IIs had hydraulic undercarriages, whereas the IIIs had to be wound up by hand. Taxi-ing a III, with the left arm round the control column, the left hand juggling the throttles, with the right hand operating the brake ratchet in the central pedestal, was quite an ordeal. Having taken off, the unfortunate pupil then had to wind up the wheels by hand!

I remember that two pupils on a cross-country in a III managed to break off the brake handle. They reported their plight by dropping a message in a shoe. The CFI then took off with a large 'follow me' sign in the cabin and brought the Mark III down on the grass.

The Ansons at Macleod had thin red lines running diagonally across the wings to facilitate station keeping when flying in formation.

Macleod was also the scene of a piggy-back landing, when one aircraft on the approach descended gently on top of another similarly engaged. I have a photograph which shows the top aircraft to have been W1570.

My log book also reveals that I flew a Tiger Moth K2601 at No 1 RFS, Panshanger, in 1948. That particular Tiger must have had quite a few hours in its 700!

Needless to say, I look forward with keen anticipation to all new Airfix kits. How about the Bulldog and the original Fury?

A. M. Black, Hudson Heights, PQ, Canada.

Mike Bowyer comments: 'Those Ansons with RAF serials were to British contracts, whereas those with the RCAF serials were to Canadian contracts. EP687-737 were specially ordered as a British contribution to the EATS, and FP748-998 were delivered to the RCAF. JS101-218 were Canadian built, at Amherst. K2601 spent much of its war service at Ansty and, after the war, served as FHB-E of 1 EFTS and RCM-K of No 1 RFS. This machine and K2594 both had very long service careers'.—Ed.

Super service

I SHOULD like to offer a word of praise for the Airfix after-sales service. It is understandable that, with the thousands of kits produced, occasionally one may contain a defective part. During the last three years I have had reason to use three of these slips.

Each time I have received, practically by return of post and carefully packed, a new part to replace the defective one, irrespective of the size or price of the kit.

It is this service that proves that when purchasing an Airfix kit you can be certain of obtaining 100 per cent satisfaction.

Now for a word about your future plans. I hope they include a model of a little-known plane of the last war,

Continued on next page

This fine collection of 1:72 scale model aircraft belongs to reader P. Hopper, of New Southgate, London, N11, who sent us the picture.

Letters to the Editor

Continued

the Vultee Vengeance dive bomber. I helped service this type while serving with the RAF in India. For a single-engined aircraft it was indeed impressive, and I am sure would make an equally impressive model, if finished in SAAC colours.

L. Benbon, Liverpool.

Up periscopes

I WOULD very much like to see a British World War 2 submarine appear in your 1:600 scale series of famous ships, with a removable side showing a detailed interior and movable periscope and fins. I would also like to see a companion for the B-type bus, preferbaly the LCC E class tram, as I am particularly interested in these vehicles.

May I add that I find your magazine very interesting.

D. Mason, Leicester.

Wheel realism

I SHOULD like to comment on the letter in your June 1963 issue from Lieut-Commander M. Nicholas, concerning the Airfix Mosquito undercarriage. A glance at any photograph of a Mosquito on the ground shows the wheel and tyre to be much stockier and thick-set than represented in the model. The undercarriage legs are also thicker in the stem. I have overcome this by using the wheels from an Airfix Beaufighter kit, which makes the general appearance far more realistic. The only snag is I don't want both my Beaufighters in the flying position and I do want to make up several 'Mossies'.

My aim is to make up a collection of model aircraft on the lines of that described by your correspondent, and heartily support the types he would like to see in model form. The Short, Saro, or Supermarine flying boats have not appeared yet, or a Hudson or Ventura; and at the other end how about the Hastings and Shackleton, the former adaptable to the Met rôle with 202 Squadron?

John S. Burr, Down Hatherley, Gloucester.

NEW MAGAZINE FOR MODEL MOTORISTS

A NEW monthly magazine devoted exclusively to model motoring and car racing is being launched by Peco Publications Ltd, of Seaton, Devon, publishers of *Railway Modeller*. First issue of the new magazine, which is called *Model Roads and Racing*, is dated October and will be on sale at the 1963 Model Rail and Road Hobby Show, at the Central Hall, Westminster, from September 24-28.

Interest in model car racing has grown enormously in recent years, but there is another important aspect, and that is scenic model roadways. Both will be dealt with at length in this new publication, which costs 2s 6d.

Super finish

I HAVE just bought the new Airfix kit of the Starfighter. I congratulate you on the transfers, improved packaging, and general appearance of the model, but I did not like the moulding of the fuselage, split along a horizontal line instead of vertical.

This new form of moulding, as far as I am concerned, rather spoils the model because the edges seem to have formed a lip, which cannot be removed without a file or knife, leaving ugly marks unless painted. As the colouring is natural metal, and I do not use silver paint to attain this finish, there is not much I can do about this.

Except for this point I must say how much I like this model and how pleased I am to add it to my collection of some 60 others, many being conversions carried out by myself.

With modern aircraft having tri-cycle undercarriage, I have had much difficulty in constructing my models to stand firmly on all wheels. I have at last found an answer. I bought a lump of heavy, thick gauge strip solder. This is quite easy to cut and can be held in place with plasticine. Also it can be put into the model through any open hole, however small, by cutting it up.

Earlier I referred to my process of finishing metal aircraft. As kits with metal finish are moulded in grey, I polish the grey plastic with silicone polish until it really shines. Then any individual panels can be painted in silver with the rear of the jet pipe silver mixed with a very small amount of blue, to gain a tempered steel effect. The paint should not have polish added, and the paint should not be added until all polish is well rubbed off.

I always enjoy AIRFIX MAGAZINE and its articles, especially the kit conversions, as this is my main hobby.

P. J. Worthey, Wisbech, Cambs.

PS . . .

JUDGING by their comments, most readers found the new-style AIRFIX MAGAZINE to their liking. We would like to thank all those who wrote in. A brief selection of their comments appears below.

'I think the new AIRFIX MAGAZINE is fabulous.'—**I. Hobbs, Cirencester, Glos.**

'I have just purchased the September AIRFIX MAGAZINE, and would like to say how pleased I am with it. It now looks a real magazine, as well as being one.'—**D. G. Potter, Eastbourne, Sussex.**

'May I take this opportunity to congratulate you on the new AIRFIX MAGAZINE. It's great!'—**J. G. Greenwood, Manningtree, Essex.**

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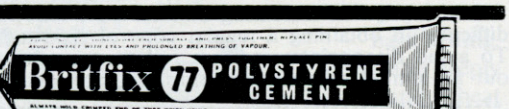

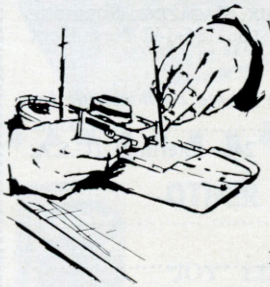

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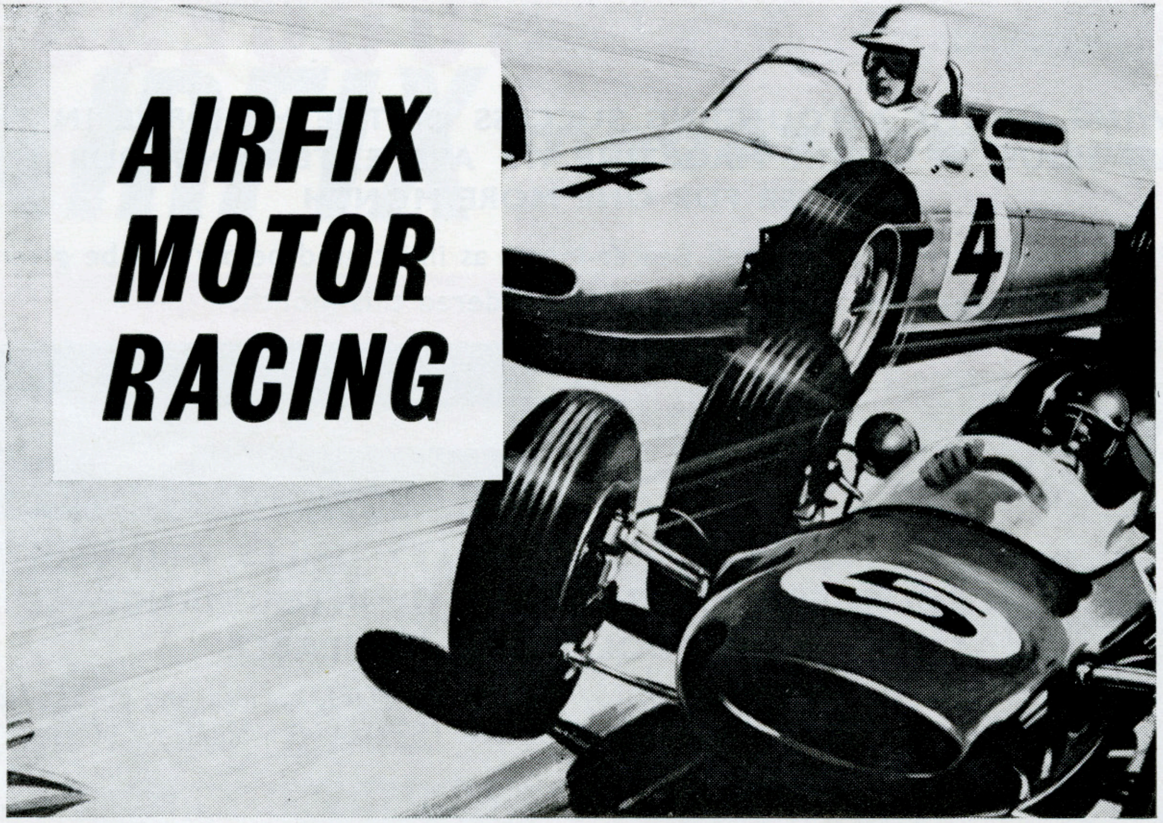

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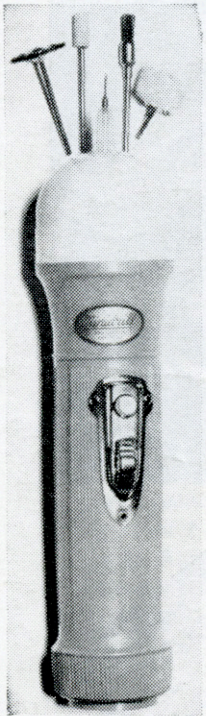

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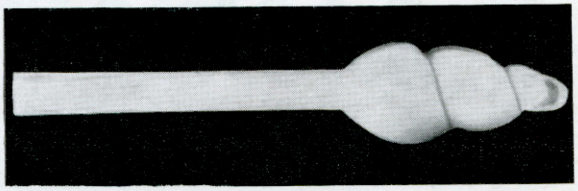

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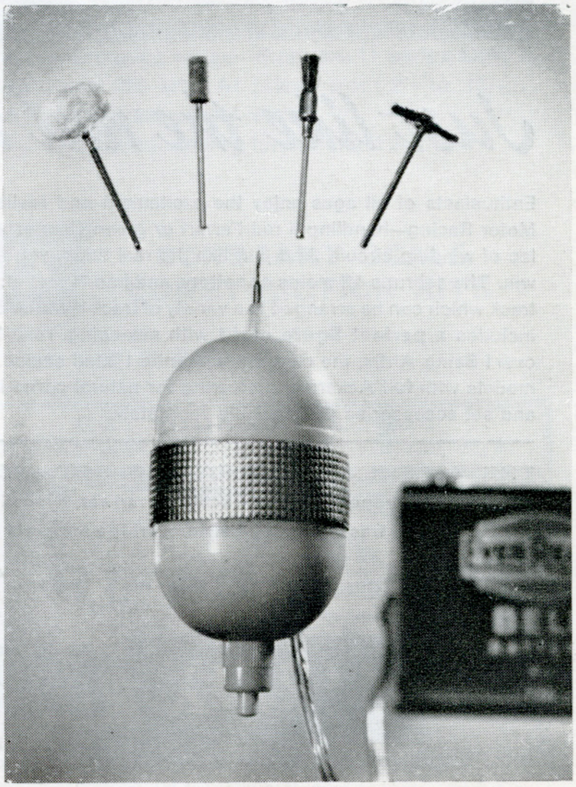

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